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DH100 Series

Digital Video Surveillance Recorder

4/8/16 H.264 CMS-DH 3G Mobile Real-Time View & Record

Instruction Manual

English Version 4.0

www.digimerge.com

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Thank you for purchasing this product. Digimerge is committed to providing our customers with a high quality, reliable security solution.

This manual refers to the following models:

- DH100 Series

For more information on this product, firmware updates, and accessory products, please visit us at:

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CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products ' enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

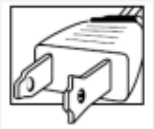
CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT.

Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacturing process of your video product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to assure your enjoyment and proper use of the video product and accessory equipment. Please read them carefully before operating and using your video product.

Installation

1. **Read and Follow Instructions** - All the safety and operating instructions should be read before the video product is operated. Follow all operating instructions.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - Comply with all warnings on the video product and in the operating instructions.
4. **Polarization** - Do not defeat the safety purpose of the polarized or grounding-type plug.

   A polarized plug has two blades with one wider than the other.

   A grounding type plug has two blades and a third grounding prong.

   The wide blade or the third prong are provided for your safety.

   If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
5. **Power Sources** - This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your video dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.
6. **Overloading** - Do not overload wall outlets of extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
7. **Power Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the video product.
8. **Ventilation** - Slots and openings in the case are provided for ventilation to ensure reliable operation of the video product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video equipment on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the video product manufacturer's instructions have been followed.
9. **Attachments** - Do not use attachments unless recommended by the video product manufacturer as they may cause a hazard.
10. **Camera Extension Cables** – Check the rating of your extension cable(s) to verify compliance with your local authority regulations prior to installation.
11. **Water and Moisture** - Do not use this video product near water. For example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.

    Caution: Maintain electrical safety. Powerline operated equipment or accessories connected to this unit should bear the UL listing mark of CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.
12. **Accessories** - Do not place this video equipment on an unstable cart, stand, tripod, or table. The video equipment may fall, causing serious damage to the video product. Use this video product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the video product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.

Service

13. **Servicing** - Do not attempt to service this video equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
14. **Conditions Requiring Service** - Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    - When the power supply cord or plug is damaged.
    - If liquid has been spilled or objects have fallen into the video product.
    - If the video product has been exposed to rain or water.
    - If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
    - If the video product has been dropped or the cabinet has been damaged.
    - When the video product exhibits a distinct change in performance. This indicates a need for service.
15. **Replacement Parts** - When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the video product manufacturer can prevent fire, electric shock or other hazards.
16. **Safety Check** - Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the video product is in safe operating condition.
17. **Wall or Ceiling Mounting** - The cameras provided with this system should be mounted to a wall or ceiling only as instructed in this guide, using the provided mounting brackets.
18. **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Use

19. **Cleaning** - Unplug the video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
20. **Product and Cart Combination** - Video and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the video product and car combination to overturn.
21. **Object and Liquid Entry** - Never push objects for any kind into this video product through openings as they may touch dangerous voltage points or "short-out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.
22. **Lightning** - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

General Precautions

1. All warnings and instructions in this manual should be followed.
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water dampened cloth for cleaning.
3. Do not use this unit in humid or wet places.
4. Keep enough space around the unit for ventilation. Slots and openings in the storage cabinet should not be blocked.
5. During lightning storms, or when the unit is not used for a long time, disconnect the power supply, antenna, and cables to protect the unit from electrical surge.

FCC CLASS A NOTICE

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

This equipment has been certified and found to comply with the limits regulated by FCC, EMC, and LVD. Therefore, it is designated to provide reasonable protection against interference and will not cause interference with other appliance usage.

However, it is imperative that the user follows the guidelines in this manual to avoid improper usage which may result in damage to the unit, electrical shock and fire hazard injury.

In order to improve the feature functions and quality of this product, the specifications are subject to change without notice from time to time.

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Features

- H.264 compression, supports D1 resolution video recording
- Security Certified Hard Disk with up to 2TB of data storage
- Back-up through USB port
- Excellent quality live and recorded video and audio
- 240fps real-time viewing, 120fps recording @ D1 (4-channel) / 240fps recording @ 2CIF (8-channel) / 480fps recording @ CIF (16-channel)
- CMS-DH application supports up to 300 DVRs, 64 channels, live-playback, E-map, full control, up to 8-screen display
- 3G Smart phone view, supports BlackBerry, iPhone, and Android*
- Supports touch screen operation using Windows 7® Touch compatible monitors
- Dual Streaming
- PIP in Live mode: monitor two cameras at once, using picture-in-picture mode
- NTP/Time Zone (DST): Synchronize your DVR time with Internet time server
- Setup Time Zone for Daylight Savings Time

*Please visit http://www.digimerge.com/product/dh100-series-touch-dvrs/ for information, firmware, and compatibility updates for mobile viewing

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GETTING STARTED

The system comes with the following components:

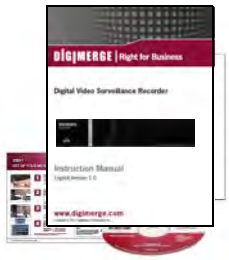
DH100 SERIES DIGITAL VIDEO RECORDER

POWER SUPPLY

MOUSE

REMOTE CONTROL

OCTOPUS CABLE
(16-CHANNEL ONLY)



INSTRUCTION MANUAL,
QUICKSTART GUIDE, &
SOFTWARE CD

HARD DRIVE SIZE, NUMBER OF CHANNELS, AND CAMERA CONFIGURATION MAY VARY BY MODEL. PLEASE REFER TO YOUR PACKAGE FOR SPECIFIC CONTENT DETAILS.

CHECK YOUR PACKAGE TO CONFIRM THAT YOU HAVE RECEIVED THE COMPLETE SYSTEM, INCLUDING ALL COMPONENTS SHOWN ABOVE.

BASIC SETUP

1. Connect the Cameras

a. Connect BNC cameras to the BNC ports on the rear panel (4/8-channel models) (Figure 1.0).
OR

a. **16-channel only**: connect the single end of the octopus cable (included) into the Camera IN port (Figure 1.1).

b. Connect BNC cameras to the Octopus cable.

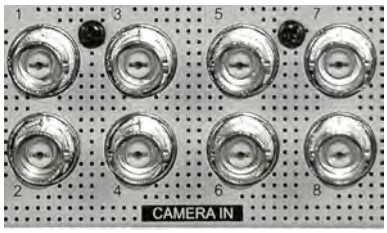


Figure 1.0 Connect BNC cameras to the system

Figure 1.1 Octopus cable port (16-channel only)

2. Connect a Monitor

a. Connect a VGA cable (not included) from the VGA port on the rear panel to the VGA port on your monitor (Figure 1.2), **OR**

b. Connect a BNC terminated cable (not included) from the Video OUT port to a TV or CCTV monitor (Figure 1.3).

Figure 1.2 Connect to a VGA monitor

Figure 1.3 Connect SPOT OUT monitor (optional)

NOTE: If you are using a touch screen monitor (not included), connect a USB cable (not included) from the monitor to a USB port on the front or rear panel. For details on touch screen setup and controls, see "Appendix G: Touch Screen Monitor Setup" on page 112.

3. Connect the Mouse

a. Connect the mouse (included) to the USB mouse port on the front or rear panel (Figure 1.4).

4. Connect the Ethernet Cable

a. Connect an Ethernet cable (not included) to the LAN port on the rear panel of system; connect the other end of the Ethernet cable to an empty LAN port on your router or switch (not included) (Figure 1.4).

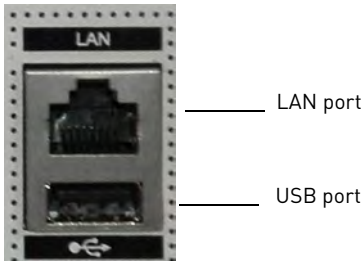


Figure 1.4 Connect an Ethernet cable and mouse or USB cable for touch screen monitor

5. Connect the Power Cable

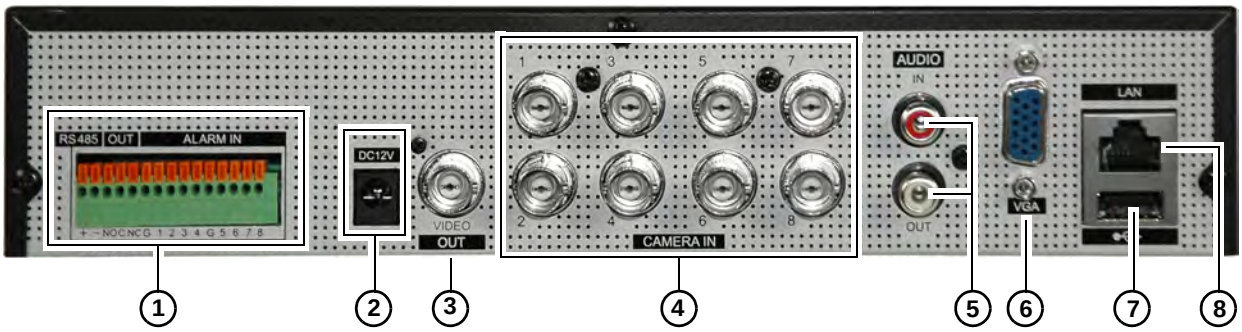
a. Connect the power supply to the DC 12V port on the rear panel of the system. Connect the power cable to an outlet, power strip, or surge protector (Figure 1.5).

Figure 1.5 Connect the power cable

FRONT PANEL

1. **USB Port**: Connect a USB mouse (included), connect a USB flash drive (not included) for data backup or firmware upgrades, or connect a USB cable (not included) for a touch screen monitor (not included).
2. **IR receiver**: IR receiver for the remote control. Keep the IR receiver clear from obstructions. If your remote does not respond to the DVR, ensure the IR receiver is not blocked by objects.
3. **Indicators**:
   - **PWR**: Glows green to indicate the system is on.
   - **REC**: Glows red to indicate system is recording.
   - **NET**: Glows orange to indicate network is active.

REAR PANEL



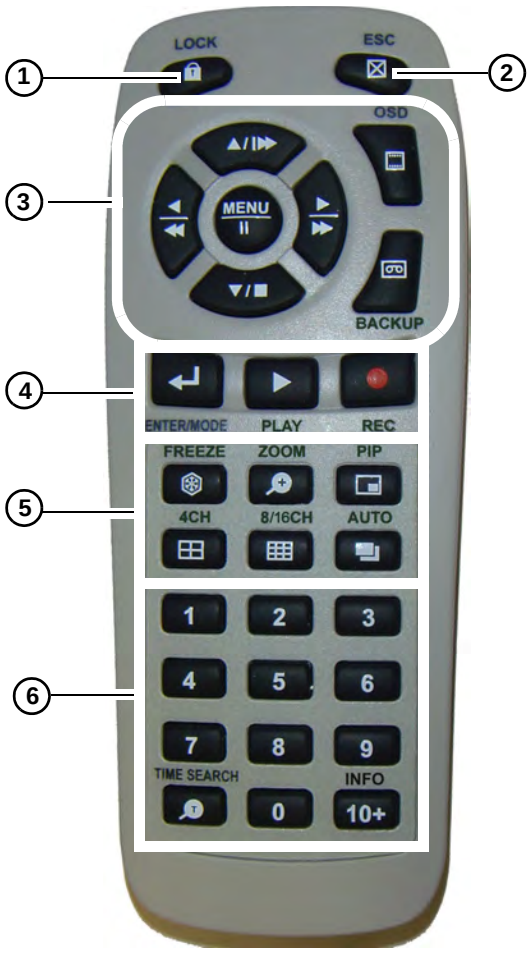
Rear panel (8-channel model shown)

1. **ALARM IN**: Alarm block to connect external alarm or motion devices (not included).
   - **RS485**: Connection block for an RS485 PTZ camera (not included).
2. **DC 12V**: Port for 12V DC 3A power supply (included).
3. **VIDEO OUT**: Video output (BNC) to connect the system to a secondary monitor or DVR.
   - **SPOT OUT** (16-channel only): Video output (BNC) to connect the system to a spot out monitor.
4. **CAMERA IN**: Camera input ports for BNC cameras (4/8-channel); port for Octopus cable (16-channel).
5. **AUDIO IN** (Top port): One RCA port (mono) for recording audio from an audio capable camera (not included).
   - **AUDIO OUT** (Bottom port): One RCA port (mono) for audio output.
6. **VGA**: VGA port to connect the system to a VGA monitor.
7. **USB port**: Connect a USB mouse, connect a USB flash drive (not included) for data backup or firmware upgrades, or connect a USB cable (not included) for a touch screen monitor (not included).
8. **LAN**: Connect an Ethernet cable (not included) to connect the system to a router or switch (not included).

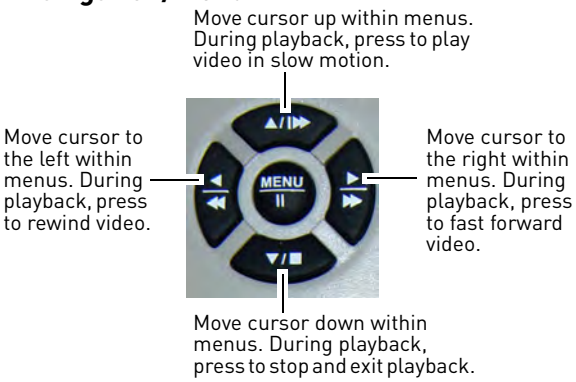
Spot OUT port
(16-channel only)

Camera IN Octopus cable port
(16-channel only)

REMOTE CONTROL



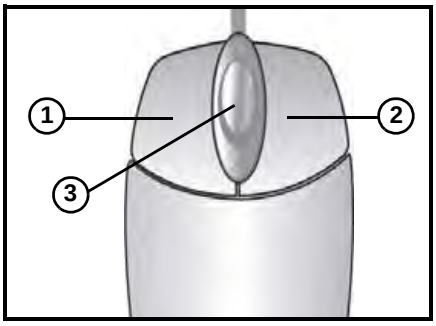
1. **LOCK**: Press to lock / unlock the system.
2. **ESC**: Press to exit from system menus.
3. **Navigation/Menu**:


Move cursor up within menus. During playback, press to play video in slow motion.
Move cursor to the left within menus. During playback, press to rewind video.
Move cursor to the right within menus. During playback, press to fast forward video.
Move cursor down within menus. During playback, press to stop and exit playback.
MENU

   - **MENU**: Press to open the Main Menu. During playback, press to pause video.
   - **BACKUP**: Press to open the Backup Menu.
   - **OSD**: Toggle OSD on/off.
4. **System configuration buttons**:
   - **ENTER (↵)**: Press to confirm menu options/ selections.
   - **PLAY**: During playback, press to play video.
   - **REC**: Start/Stop system recording (must be within live viewing).
5. **Viewing buttons**:
   - **FREEZE**: Pause the video during playback.
   - **ZOOM**: Press to open the zoom field (live view, single channel only). Press again to zoom in.
   - **PIP**: Open picture in picture mode.
   - **4CH**: View in quad mode.
   - **8/16CH**: View in 9-channel mode (8/16-channel only). 16-channel only: press 8/16CH repeatedly to change between 9-channel and 16-channel displays.
   - **AUTO**: Start sequence view.
6. **Number keys:**
   - **TIME SEARCH**: Press to open the Time Search menu.
   - **1~0**: Press to view channels in full screen view. Press to enter numbers within menus.
     - 16-channel only: press 10+ and then a number to view channels 10-16 (e.g. press 10+ then 0 to view channel 10, press 10+ then 1 to view channel 11, etc.).
   - **10+** (**INFO** button): In live view, press to open the system information window. 16-channel only: press 2 times to open system information window.

Mouse Control

The mouse is the primary control device for the system. To connect a USB mouse:



- Connect a USB mouse to the USB port on the front or rear panel.

1. **Left-Button**:
   - While in a split-screen display mode, double-click an individual channel to view it in full-screen. Double-click again to return to the split-screen display mode.
   - While navigating menus, click to open a menu option.
2. **Right-Button**:
   - **During Live View**: Right-click anywhere on the screen to open the Quick Menu.
   - **Within system menus**: Right-click to exit menus.
3. **Scroll-Wheel**: Not used.

Adjusting system values

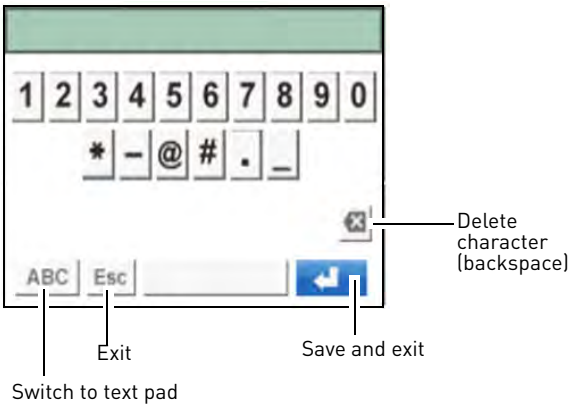
There are several ways to adjust system values.

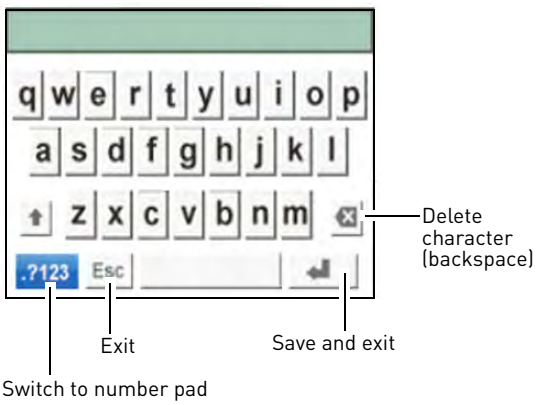
Adjusting values

For certain menus, click the **+** or **-** symbol to change the values.

Inputting numbers or letters

When you click a text field, the number or text pad appears, depending on the menu.





USING THE SYSTEM

The default system password is **000000**

To power the system ON/OFF:

- Connect the power cable to the DC12V port to turn on the system. The system turns on automatically.
- Disconnect the power cable from the DC12V port to turn off the system.

DC12V power port

8-channel model shown

Password

By default, the login password is disabled. The default system password is **000000**. You can configure the system password through the **Main Menu** →**System Setup (** **)**. For complete information on enabling a system password, changing your password and managing users on the system, see "Account Setup" on page 39.

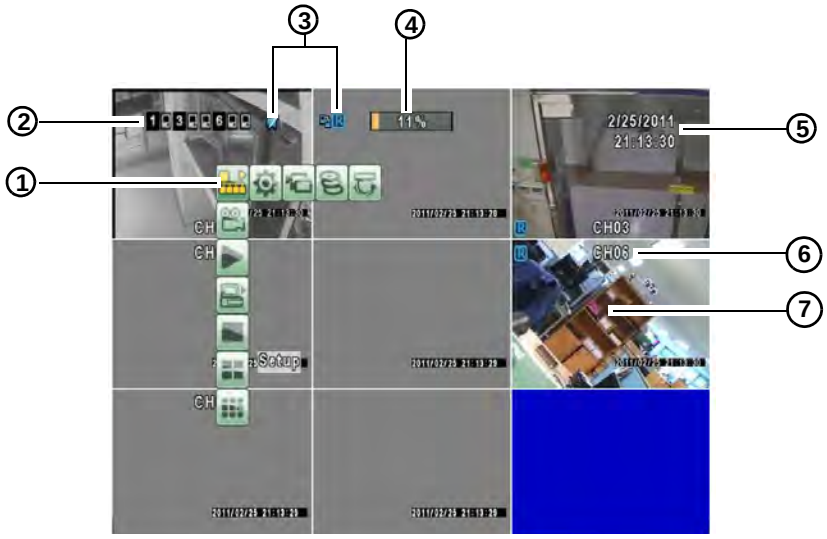
To enable the system password:

1. Right-click in the main viewing window, and click **Main Menu** ( ).
2. Click **System Setup (** **)**.
3. Select the **Password Auth** checkbox.

4. Right-click and click **Yes** to save your settings.
5. To enable the system password, click the "Lock" button in the QUICK menu (**right-click→Display Setup→Lock**) after finishing menu setup. Or select "Key Lock" for the system to auto Lock.

On-Screen Display

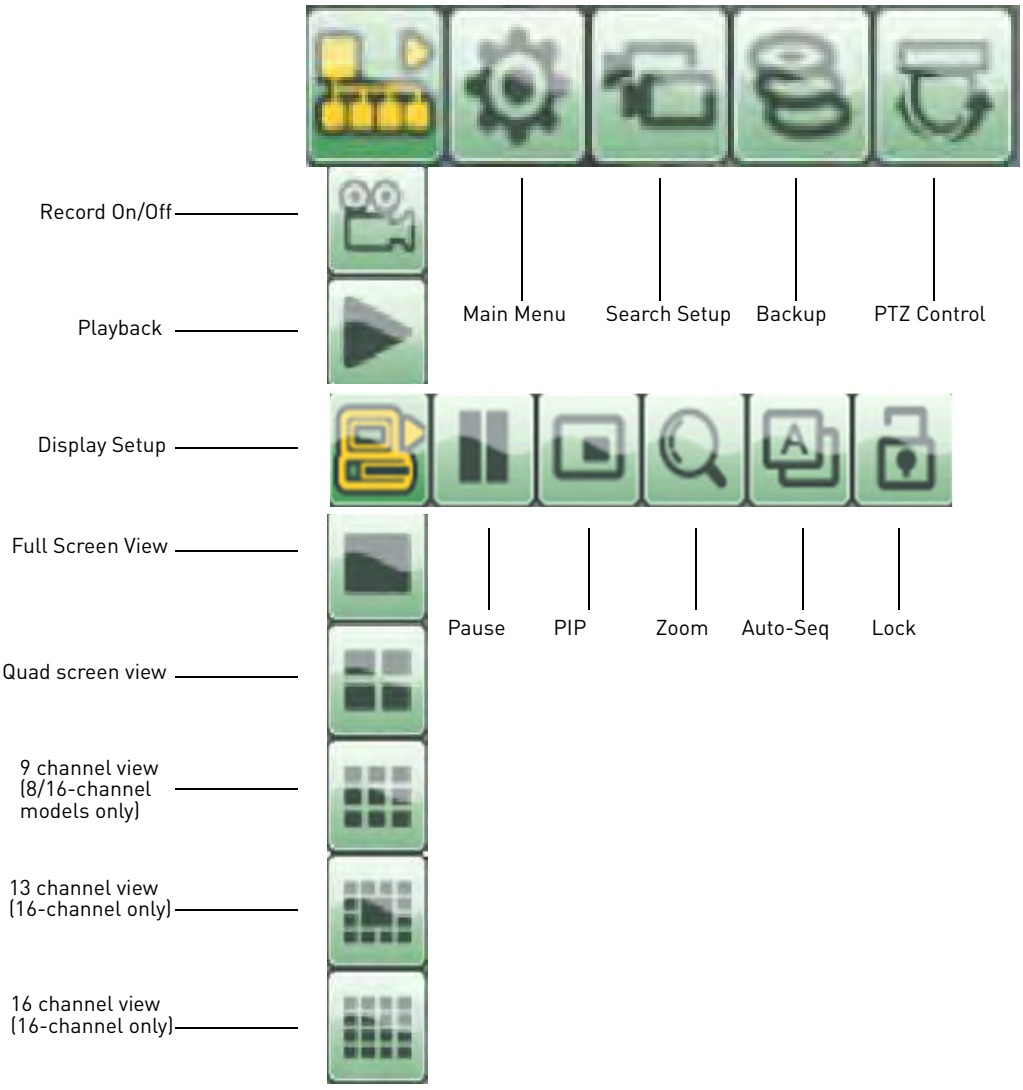
The system shows the following for all display views:



1. **Quick Menu**: Right-click to open the quick menu to the system.
2. **Channel Status Indicator (1 2 3 4 5 7 8)**: Shows the status of the channels.
   - : Video loss / : Alarm Event / : Motion event
3. **System Indicators**:
   - : System is recording. If there is no "R" symbol on-screen, then your system is NOT recording.
   - : Scheduled recording enabled.
   - / : Audio enabled / disabled.
   - : System locked.
   - : Ethernet connected.
   - : USB connected.
   - : Live image is paused.
   - : Auto-sequence enabled.
   - : PTZ camera enabled.
4. **Hard drive storage indicator**: Shows the amount of storage space being used (i.e. 11% means the hard drive is 11% full).
5. **Time & Date**: Displays current system date and time.
6. **Channel Title**: You can customize the channel with a unique name for each channel. See “EVENT SETUP” on page 29.
7. **Display**: Show live video and playback in single channel full-screen, quad, and split-screen configurations.

About the Quick Menu

The Quick menu gives you access to the system's key functions. To access the Quick Menu, right-click the screen during live view.

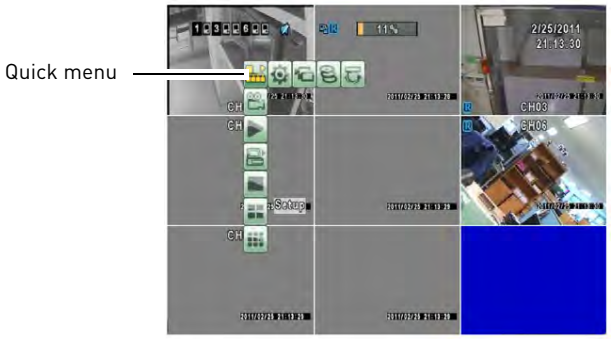


Setting the Time

> It is highly recommended to set the time on the system prior to doing any recording.

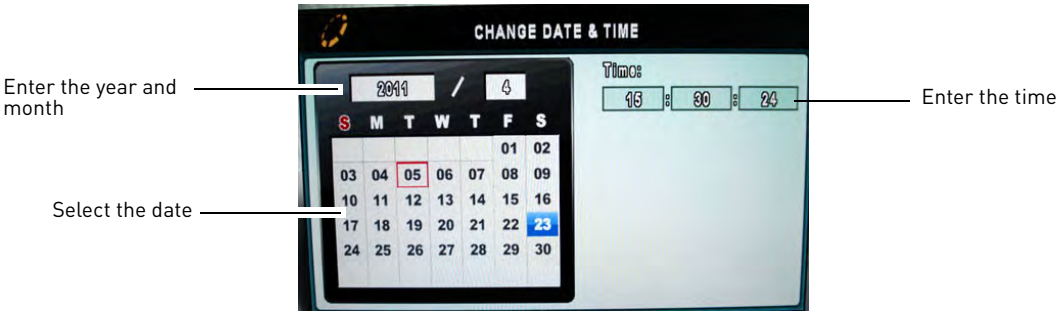
To set the date and time:

1. In the main viewing mode, right-click to open the quick menu.



2. Click **Setup** ( )→**Main Menu** ( )→**System Setup**( ).
3. From the SYSTEM SETUP menu, click **Date/Time Setup**.

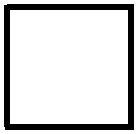
4. Click **Change Date & Time**.
5. In the calendar, select the year, month and date. Click the field under "Time" and enter the current time.



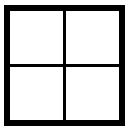
6. Right-click and click **Yes** to save your settings.

Multi-Screen Display

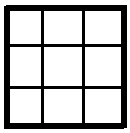
The system can display channels in full-screen single channel, quad, and multi split-screen displays.



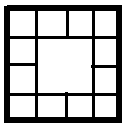
Full-Screen



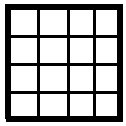
Quad



9-Channel split (8/16-channel models only)



13-Channel split (16-channel models only)



16-Channel split (16-channel models only)

To change the screen display:

1. Right-click to open the Quick Menu.
2. Click one of the following:

   • Full Screen ( ), Quad Display ( ), 9-Channel Display ( ) (8/16-channel models only), 13-Channel Display ( ) (16-channel models only), or 16-Channel Display ( ) (16-channel models only.

   NOTE: You can right-click and click the Full Screen, Quad Display, or 9-Channel Display repeatedly to change the channel(s) you are viewing.

13-Channel Display (16-channel Models Only)

The 13-Channel Display shows one large channel in the center of the screen and 12 small channels around it. You can select which channels you want in the center or sides of the screen.

Click channel titles to change channels

To change channels shown in the 13 Channel Display:

1. Click the title of the channel you would like to change. A list of channels appears.
2. Click the channel you would like to select.

   NOTE: The DVR will not display the same channel more than once.

Starting and Stopping Continuous Recording

By default, the system immediately begins recording in continuous mode from any connected cameras. The system records with the default recording settings (FRAME resolution, HIGH quality, at 15 FPS). You can start and stop the system from Continuous Recording once you are logged into the system as the administrator. **Note that the system will continue motion and alarm recording even if you stop Continuous Recording.**

To start/stop Continuous Recording:

1. In the main viewing mode, right-click to open the quick menu. Click **Record On/Off (** **)**.

   - If the Record icon ( ) is displayed in the channel, recording is enabled. If the Record icon is not displayed in the channel, Continuous Recording is disabled. Always double-check to see that the Record icon is present to ensure the system is in Continuous Recording.

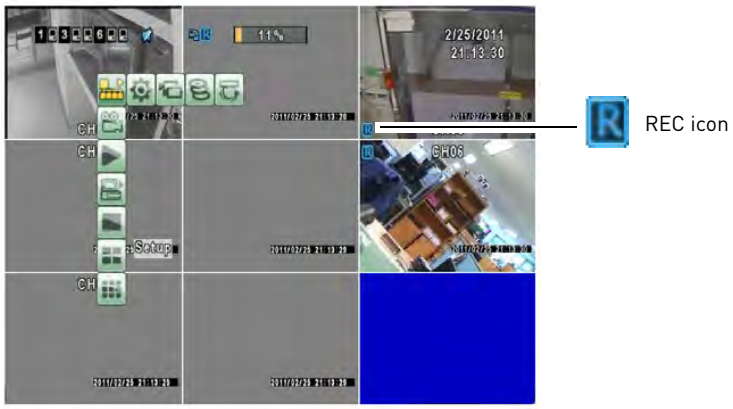
RECORDING

By default, the system is set to immediately record at startup from connected cameras. This is called Continuous Recording. It is highly recommended to keep Continuous Recording on at all times.

The system can perform Continuous Recording, Event Recording, and Schedule Recording. However, the system can only perform one type of recording at a given time.

Continuous Recording

By default, all camera channels are enabled with Continuous Recording. During Continuous Recording, the Record icon ( )appears in the channel.



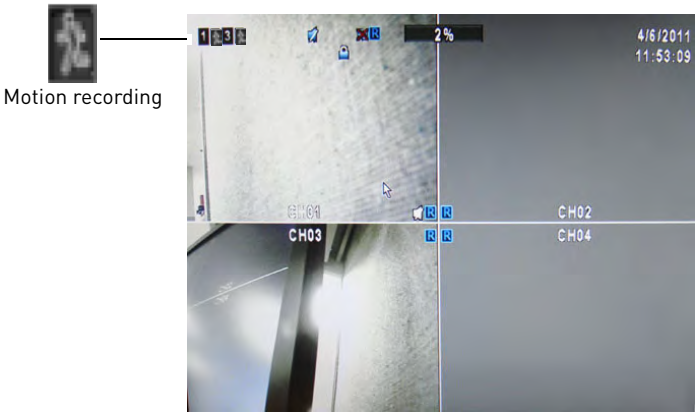
Event Recording

The system includes three modes of event recording:

- **Motion**: The system marks video as an event when the camera detects motion.
- **Alarm**: The system marks video as an event when an alarm or sensor is triggered
- **Video Loss**: The marks video as an event when a camera is disconnected or suffers video loss. The system employs a pre-record function to capture video seconds before the video loss occurred

Motion

Motion Recording allows the DVR to mark video as an event. This allows you to search for motion recordings in the search menu. For example, if you enable motion recording, during Event Search, you can search for only the events that contain movement. When motion is detected by the camera, the motion icon appears.

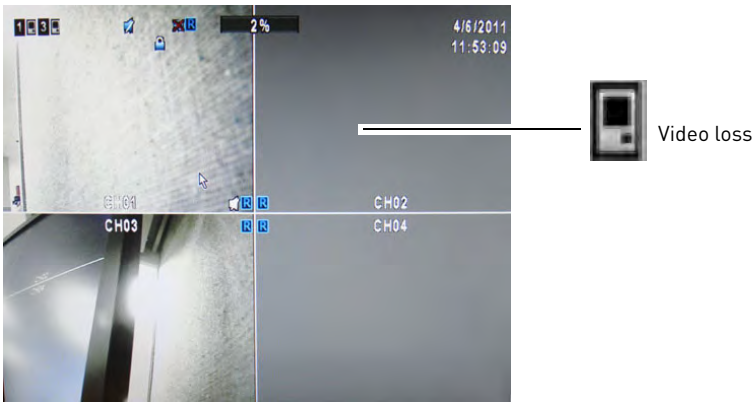


Alarm

When an alarm is triggered, the system will continue to record, but can apply unique recording parameters that you can set in the Event menu **(Main Menu→Event Setup→Sensor Setup)**.

Video Loss

If a camera is disconnected or is damaged, the video loss icon will appear for the affected channel. The system marks the video footage as an "event" when video loss occurs.This allows you to search for any cameras that experienced video loss.



Recording Audio

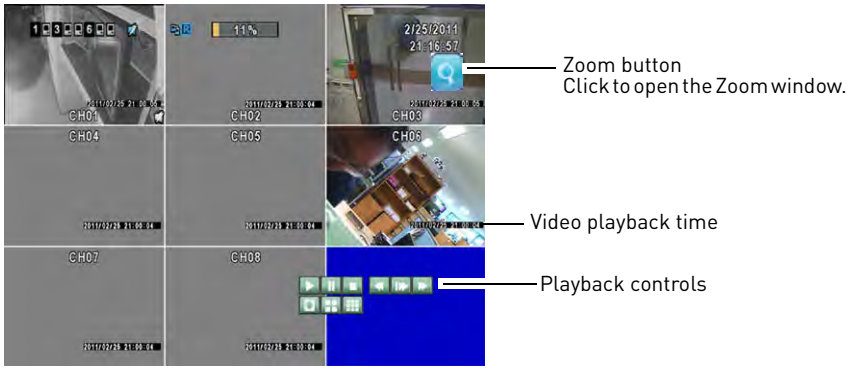
The system can record one channel of audio. You must have an audio enabled camera or self-powered microphone connected to the system in order to use this function. For details on connected audio recording devices, see “Appendix K: Using Listen-in Audio” on page 120.

QUICK PLAYBACK

The Quick Playback function allows you to playback recently recorded video starting from the beginning of the hour. For example, if the time is currently 1:33pm, when you start Quick playback, the playback begins at 1:00pm.

To begin playback:

1. Right-click in the main viewing window, then click **Playback** ( ). The playback window opens.



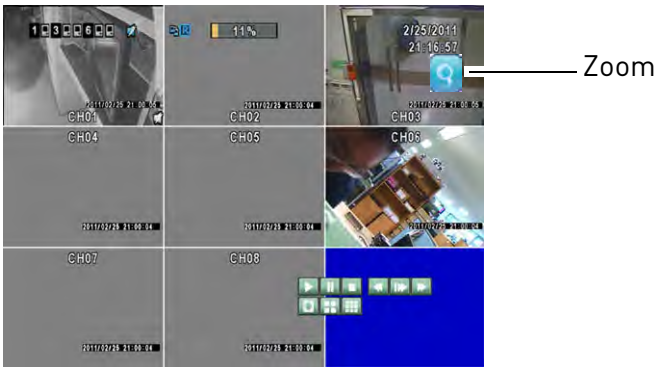
2. Use the navigation controls to manipulate video playback.

- : Click to begin playback.
- : Click to pause playback.
- : Click to stop and exit playback, and return to the live viewing window.
- : Click to increase reverse playback speed 2X~64X.
- : Click to increase forward playback speed 2X~64X.
- : Click to view video in slow motion (1/2, 1/4, 1/8 speed).
- : Click to view in full-screen mode.
- : Click to view in quad mode.
- : Click to view in 9-channel mode (8/16-channel only).
- : Click to view in 16-channel mode (16-channel only).
- : Click to take snapshot (USB key must be inserted).

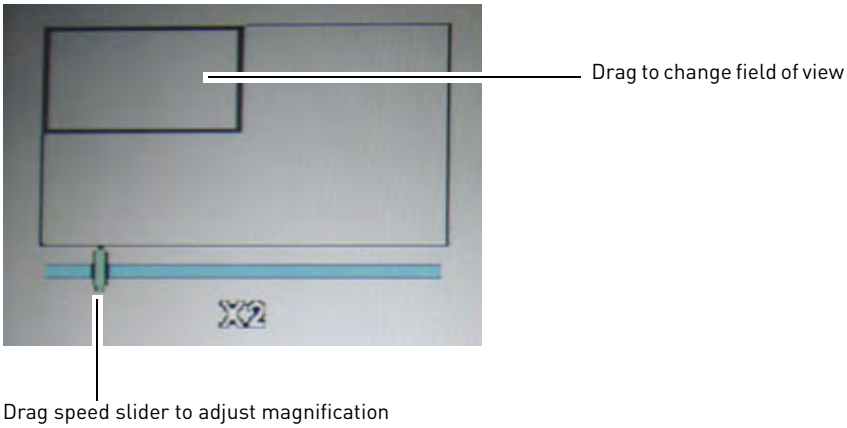
Zoom

To zoom into a portion of the screen:

1. During playback, double-click on the channel you wish to zoom into, and click the **Zoom** button ( ).



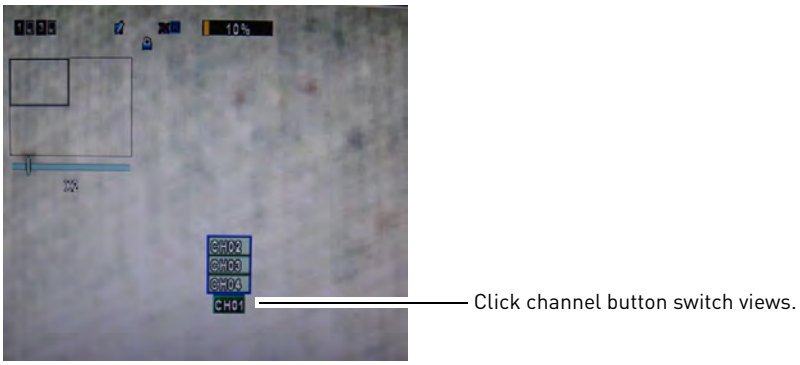
2. Drag the square inside the viewfinder to change the area of view.
3. Drag the Speed slider to increase or decrease magnification.



4. Right-click to exit zoom view.

To change channel within Zoom view:

- Click the channel button.



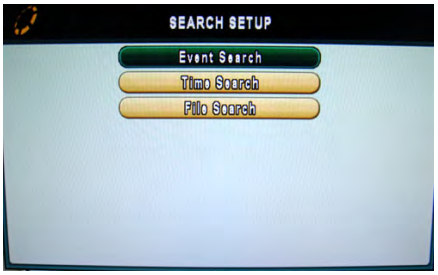
SEARCH

Search for recorded video data on the system using the Time Search menu.

To open the Time search menu:

1. Press the **TIME SEARCH** button on the remote control, **OR**

   - Right-click in the main viewing window, and click **Search Setup** ( ).



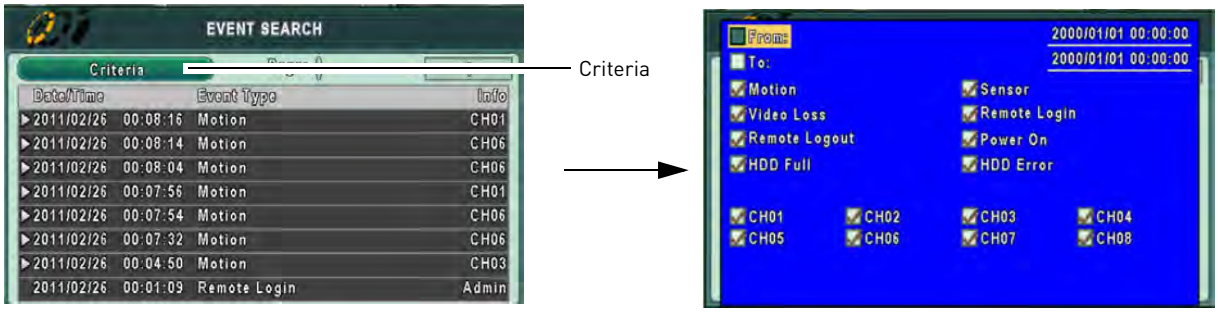
2. Click on one of the following: **Event Search, Time Search** or **File Search**.

Event Search

Event search allows you to search for events in a chronological list.

To view video from an Event Search:

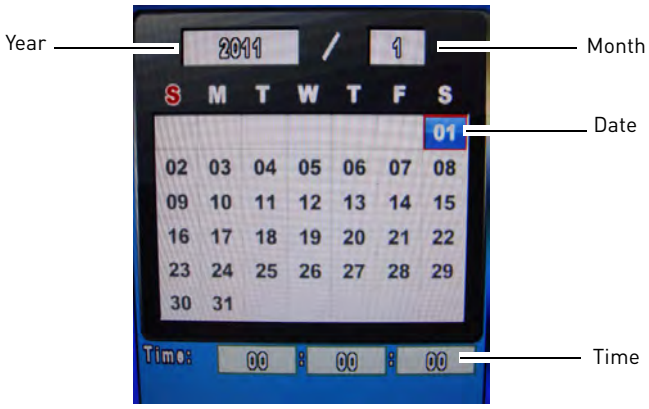
1. Click the **Criteria** button.



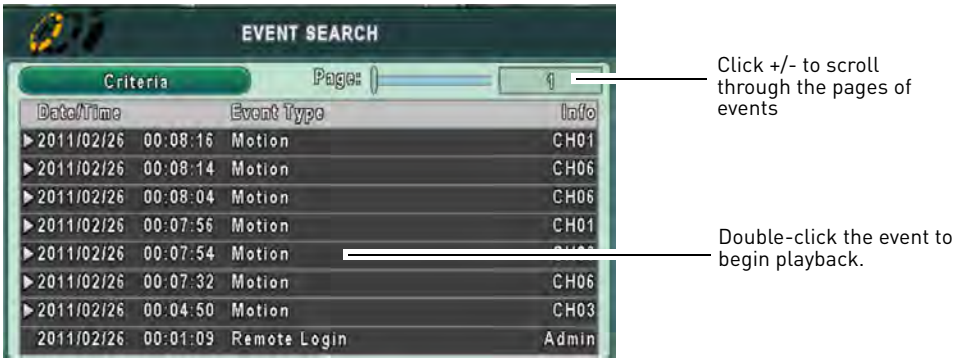
2. Select the type of events you wish to search for (i.e. motion, video loss, etc.).

3. Beside "From", select the checkbox. Click the date field.

4. In the calendar, enter the year, month, date, and time you wish to begin searching.



5. Right-click and click **Yes** to save your settings.
6. Beside "To", select the checkbox. Click the date field.
7. Repeat step 4. When finished, right-click and click **Yes** to save your settings.
8. Double-click on the event type you wish to view. The video automatically plays.

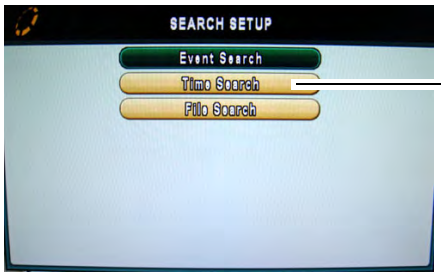


Time Search

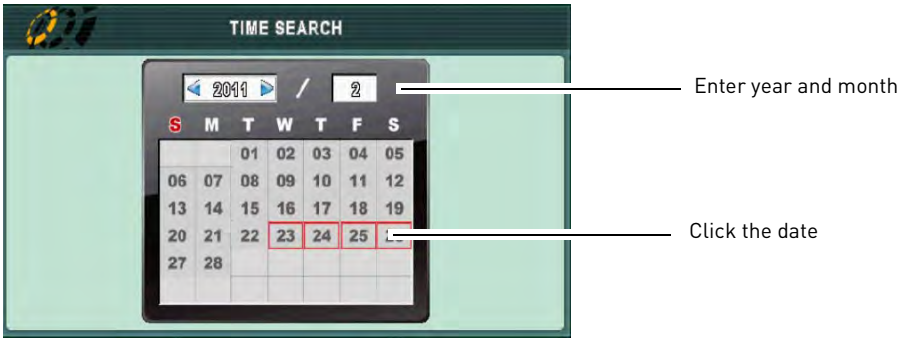
Time Search allows you to search for video within a specified date and time.

To perform a Time search:

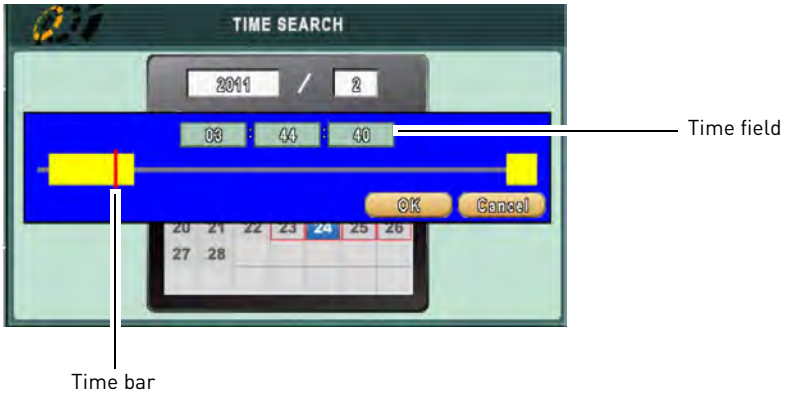
1. Click **Time Search**.



2. Enter the **year** and **month.** Click the date you wish to search. The Time bar appears.



3. Enter the time in the time field, or drag the slider in the time bar.



4. Click **OK** to begin video playback.

File Search

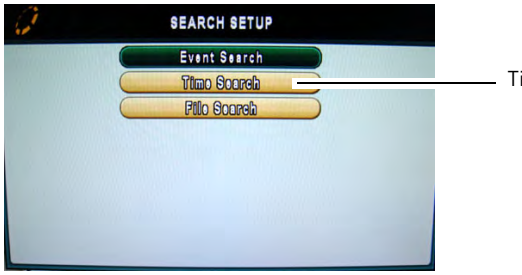
File Search allows you to search for video files backed up to a USB device (i.e USB memory key).

Prerequisite:

- Back up video to a USB memory key.

To perform a File Search:

1. Insert a USB memory key to the front panel of the system. Note that this USB key must contain video backed up from the system.
2. Click **File Search**.



3. Double-click the file to begin playback.

Backing up Video

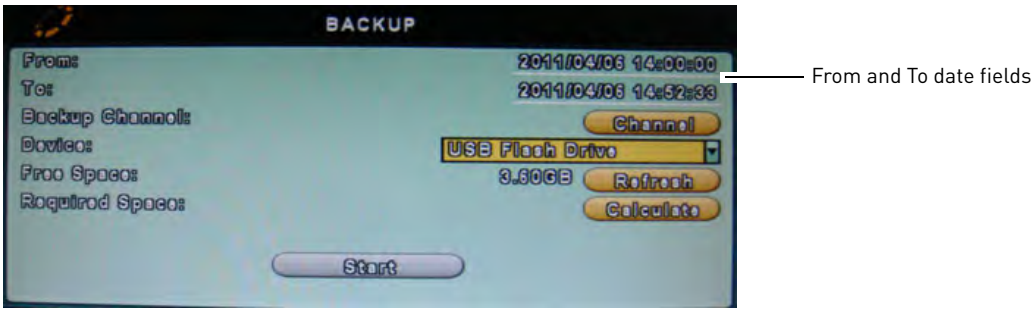
Step 1: Format the USB memory key

1. Insert a USB memory key into the front or rear panel of the system.
2. Right-click in the main viewing window, and click **Main Menu (** **)→Utilities→USB Initialization**.
3. At the prompt, click **Yes** to format your USB key. Wait for the success message.
4. Right-click to exit to the main viewing window.

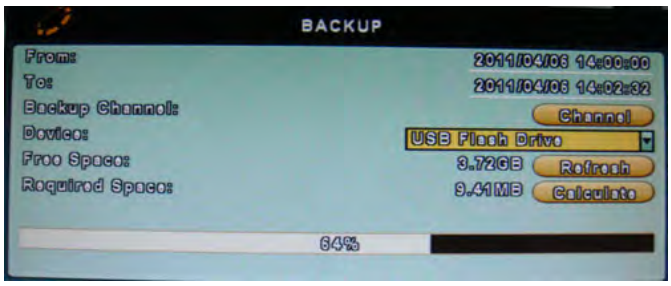
Step 2: Back up the video

1. Right-click in the main viewing window, and click **Backup** ( ).

2. Beside "From" and "To", click the date field and select the start and stop times you wish to back up.



3. Click the **Channel** button, and select the channels you wish to back up.
4. In the **Device** drop-down menu, select the USB device.
5. Click the **Start** button to begin backing up data.



6. Wait for the "Backup Success" message to appear. Remove the USB memory key.

SETTING UP SEQUENCING

Sequencing allows you to view channels in a rotating interval.

To enable sequence view:

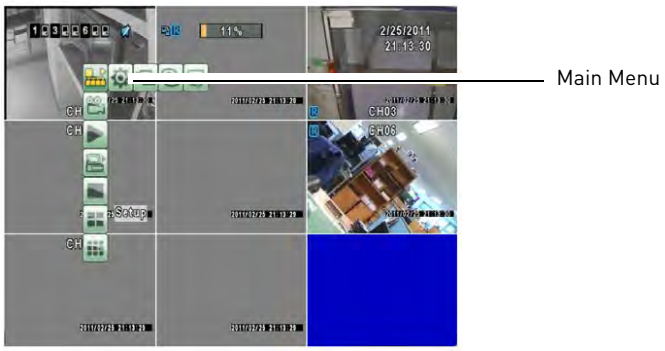
- Press the **AUTO** button on the remote control. The icon appears to indicate sequence view. The DVR begins sequence view in full screen view.

  OR

- Right-click in the main viewing window, and click **Display Setup→Auto Seq( )**.

To configure the dwell time between each sequence:

1. Right-click in the main viewing window and click **Main Menu ( )**.



2. Click **System Setup ( )→Display Setup**.
3. Beside Auto-Seq Interval (Seconds), enter the desired dwell time in seconds.

4. Right-click and click **Yes** to save your settings.

SETTING UP MOTION RECORDING

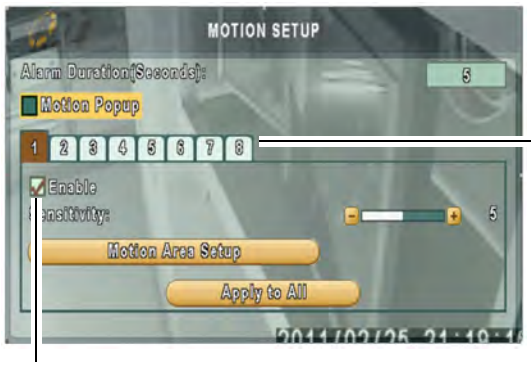
Motion recording allows the system to mark motion detection events. This allows you the option to search only footage that has movement using Event Search.

Enabling Motion Recording

You must enable motion detection on your cameras to use motion recording.

To enable motion detection on your cameras:

1. From the Main Menu, click **Event Setup (** **)→Motion Setup**.
2. Click the channel number that you wish to enable motion detection on.



3. Select the **Enable** checkbox to enable motion detection.
4. **OPTIONAL**: Select the **Motion Popup** checkbox if you want the selected channel to display in full-screen mode when it detects motion.
5. **OPTIONAL**: Click **Apply to All** to apply motion detection settings to all cameras.
6. Right-click and click **Yes** to save your settings. The system will display the ( ) symbol when a channel detects motion. For more information on configuring motion detection see "Motion Setup" on page 29.

Motion Recording Options

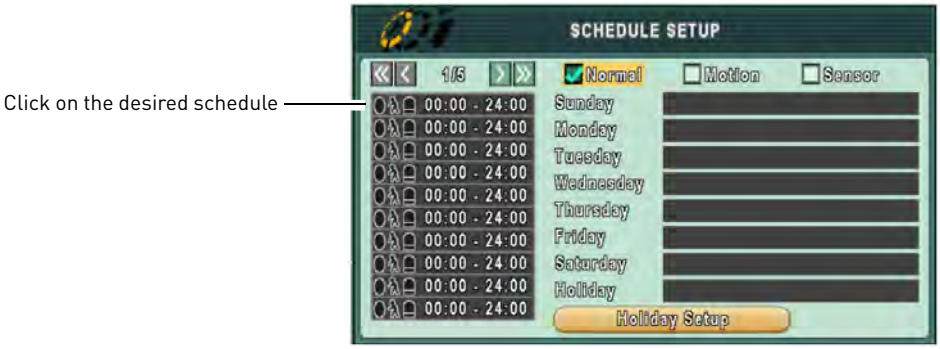
You can set up your system to record in the following configurations:

- **Continuous Recording + Motion**: Record continuously and save motion events 24/7.
- **Motion Only**: Record motion events 24/7; do not record footage without motion.
- **Scheduled Recording**: Set up custom schedules for continuous, motion, and alarm sensor recording.

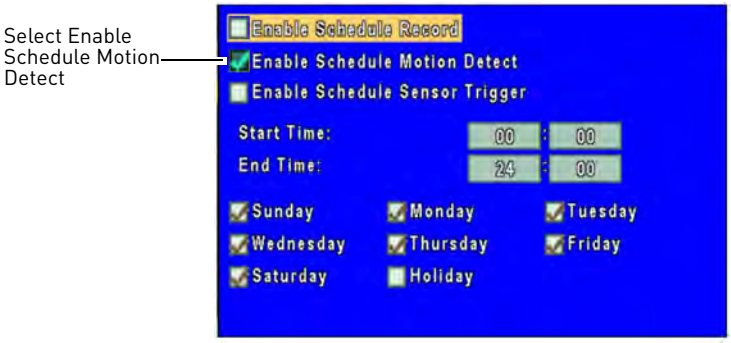
Setting Up Continuous Recording + Motion:

Step 1 of 2: Configure the schedule for 24/7 Continuous Recording and Motion:

1. Right-click in the main viewing window and click **Main Menu→Schedule Setup (** **).**
2. Click on the desired schedule to configure on the left panel.



3. Deselect the "Enable Schedule Record" checkbox.
4. Select the "Enable Schedule Motion Detect" checkbox.



5. Configure the following:
   - **Start Time & End Time**: Set the Start Time to **00:00** and the End Time to **24:00**.
   - **Days of the week**: Select every day of the week; do not select Holiday.
6. Right-click and click **Yes** to save your changes.

Step 2 of 2: Enable motion detection and Continuous Recording:

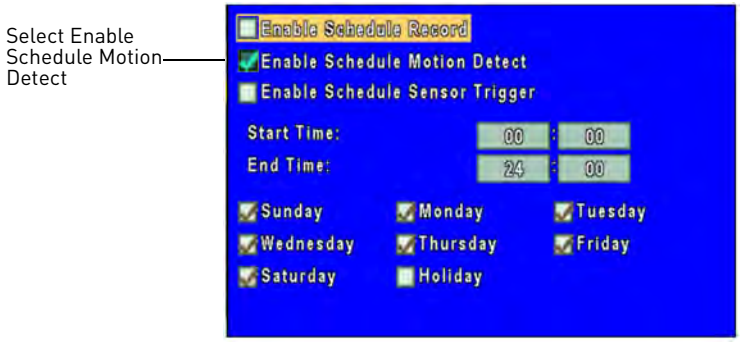
1. Enable motion detection for your cameras using the steps in “Enabling Motion Recording” on page 23.
2. Ensure Continuous Recording is enabled.
   - During Continuous Recording, the Record icon ( )appears in each channel. If the icon is not shown, right-click and click **Record on/off (** **)**.

Setting up Motion Only Recording

Step 1 of 2: Configure the Schedule for 24/7 motion recording:

1. Right-click in the main viewing window and click **Main Menu→Schedule Setup (** **).**
2. Click on the desired schedule to configure on the left panel.

3. Deselect the "Enable Schedule Record" checkbox.
4. Select the "Enable Schedule Motion Detect" checkbox.



5. Configure the following:
   - **Start Time & End Time**: Set the Start Time to **00:00** and the End Time to **24:00**.
   - **Days of the week**: Select every day of the week; do not select Holiday.
6. Right-click and click **Yes** to save your changes.

Step 2 of 2: Enable motion detection and disable Continuous Recording:

1. Enable motion detection for your cameras using the steps in “Enabling Motion Recording” on page 23.
2. Ensure Continuous Recording is disabled.
   - During Continuous Recording, the Record icon ( )appears in each channel. If the icon is shown, right-click and click **Record on/off (** **)**.

Setting up Scheduled Recording

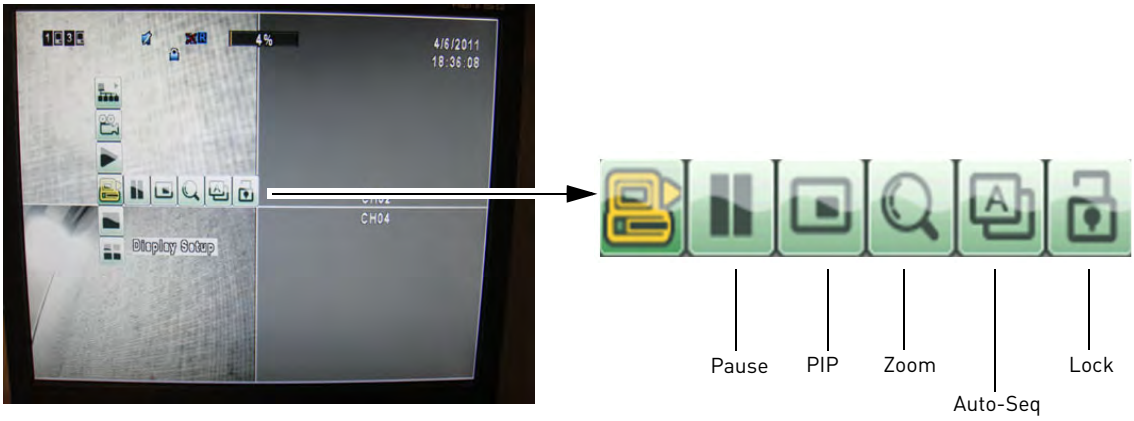
To set up Scheduled Recording, create separate schedules for Continuous Recording, motion detection, and alarm sensor recording using the instructions in “SCHEDULE SETUP” on page 30. Please note you will have to enable motion detection on your cameras to use motion detection.

DISPLAY SETUP MENU

The Display Setup menu allows you to pause live video, enable Picture in Picture (PIP), Zoom, Auto Sequence, and lock the system.

To configure the Display Setup menu:

1. Right-click in the main viewing window, and select **Display Setup (** **)**.



2. Click the following:
   - **Pause**: Pause live video. The system continues to record even if the image is paused.
   - **PIP**: Press to open the Picture in Picture mode.
   - **Zoom**: Press to Zoom into the channel.
   - **Auto-Seq**: Start auto sequence view.
   - **Lock**: Lock the system (system password must be enabled).

USING THE MAIN MENU

To open the Main Menu:

- Using the Remote Control: Press the **MENU** button.
- Using the Mouse: Right-click in the main viewing window→**Setup (** **)→Main Menu (** **)**.

1. **Record Setup**: Configure recording frame rate, quality, and hard drive recording mode.
2. **Event Setup**: Configure Motion or Sensor configuration.
3. **Scheduled Setup**: Configure recording schedule.
4. **Camera Setup**: Configure camera color and brightness properties and camera name.
5. **PTZ Setup**: Configure PTZ (pan/tilt/zoom) camera settings.
6. **Network Setup**: Configure system DDNS and network settings.
7. **System Setup**: Configure system display setup, date and time, device setup, account setup, and SPOT monitor setup.
8. **Utilities**: Format hard drives, restore system defaults, upgrade the system firmware, and configure other system settings.

RECORD SETUP

Use the Record menu to configure system recording settings.

To configure hard drive recording mode:

1. Beside HDD Full drop-down menu, select **Overwrite** or **Stop**.
   - **Overwrite**: When the hard drive is full, the hard drive will erase the oldest footage, and begin recording again in a loop (first in first out).
   - **Stop:** The system stops recording when the hard drive is full.

Select Overwrite or Stop

OSD Position

To configure the OSD X&Y axis:

1. Beside **OSD position X** and **OSD position Y**, enter the desired screen co-ordinates.
2. Right-click and click **Yes** to save your settings.

OSD Position Setup

The OSD position setup allows you to change where the time and date appears.

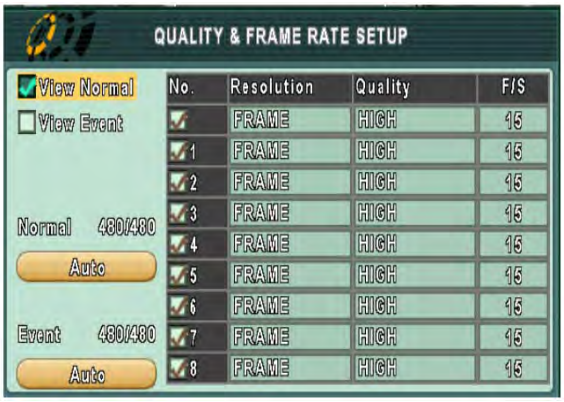
To configure the OSD Position:

1. Click the **OSD Position Setup** button.
2. Drag the time/date to the desired location.
3. Right-click to exit. Right-click again and click **Yes** to save your changes.

Quality & Frame Rate Setup

To adjust the recording quality and frame rate:

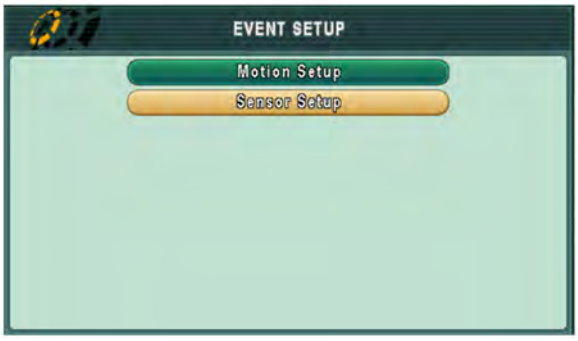
1. Click the **Quality & Frame Rate Setup** button.



2. Configure the following:
   - **No.**: Select the camera number you wish to configure.
   - **View Normal**: Select the checkbox to configure how the system records during normal recording.
   - **View Event**: Select the checkbox to configure how the system records during event recording.
   - **Resolution**: Select recording resolution. Select from **CIF, FIELD**, or **FRAME**.
   - **Quality**: Configure the recording quality. Select from **LOW, MIDDLE, HIGH, SUPER** or **ULTRA**.
   - **F/S** (frames per second): Select the system frame rate speed.
   - **Auto** button: Click the Auto button for the system to optimize the frames allocated to recording.
3. Right-click and click **Yes** to save your settings.

EVENT SETUP

Configure Motion or Sensor configuration.



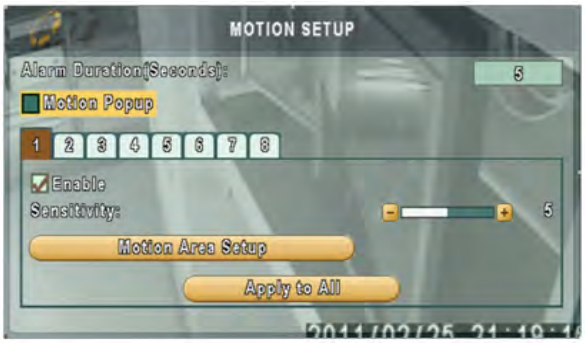
The Event Setup window has two menus — Motion Setup and Sensor Setup.

Motion Setup

The Motion Setup window allows you to configure motion sensitivity, the alarm recording duration, and motion detection area.

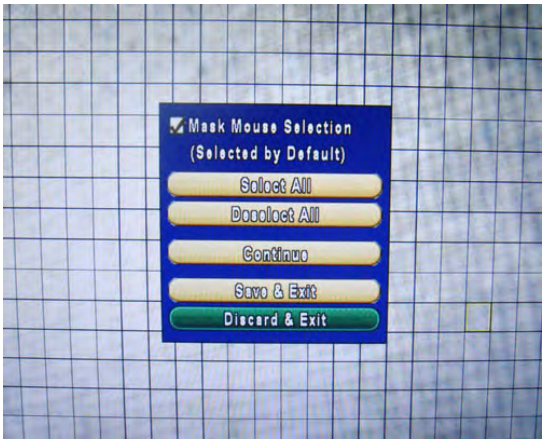
To configure Motion Setup settings:

1. From the EVENT SETUP window, click the **Motion Setup** window.



2. Configure the following:

   - **Alarm Duration (Seconds)**: Enter the duration the system continues to record after an event occurs.
   - **Motion Popup**: Select the checkbox if you want the channel that detects motion, to "pop-up" in full screen.
   - **Sensitivity:** Click **-/+** to increase or decrease motion sensitivity.
   - **Apply to All**: Click to apply the settings to all channels.
   - **Motion Area Setup**: Opens the Motion setup grid.



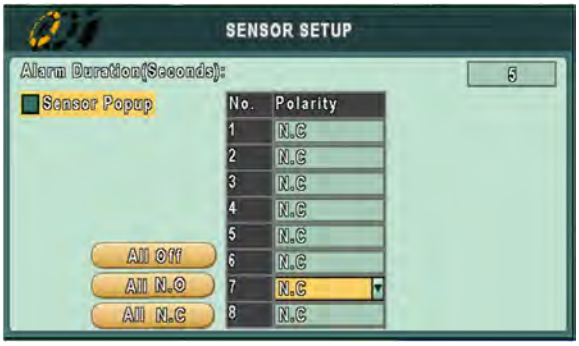
   - Configure the following:
     - **Mask Mouse Selection**: Select the check box so that you can use the mouse cursor to customize the grid. You can double-click portions of the grid to de-select area if this selection is enabled.
     - **Select All**: Select the entire area for motion detection.
     - **Deselect All**: Deselect the entire area for motion detection.
3. Click **Save & Exit** to save your settings.
4. Right-click and click **Yes** to save your settings.

Sensor Setup

The Sensor Setup window allows you to configure the sensor type, and the alarm duration.

To configure Sensor Setup settings:

1. From the EVENT SETUP window, click **Sensor Setup**.



2. Configure the following:

   - **Alarm Duration (Seconds):** Enter the duration the system alarm continues to activate after an event.
   - **Sensor Popup:** When a sensor triggers, the corresponding channel will open in full-screen mode.
   - **Polarity**: Select N.O (normally open) or N.C (normally closed).
   - **All Off:** Turns all alarm sensors off.
   - **All N.O:** Selects all sensors as N.O (normally opened).
   - **All N.C:** Selects all sensors as N.C (normally closed).

3. Right-click and click **Yes** to save your settings.

SCHEDULE SETUP

Configure recording schedule, and recording types.

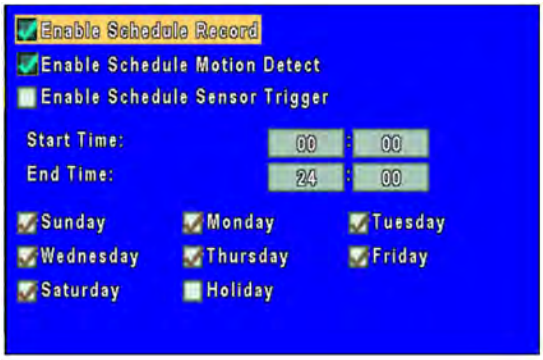
To configure the Schedule Setup settings:

1. Click on the schedule on the left that you wish to configure.

   NOTE: You can configure up to 50 schedule types.

Select schedule

2. Configure the following:



   - **Enable Schedule Record**: Select the checkbox to enable scheduled recording.
   - **Enable Schedule Motion Detect**: Select the checkbox to enable motion recording.
   - **Enable Schedule Sensor Trigger**: Select the checkbox to enable alarm sensor recording.
   - **Start Time**: Enter the start time of the scheduled recording.
   - **End Time**: Enter the stop time of the scheduled recording.

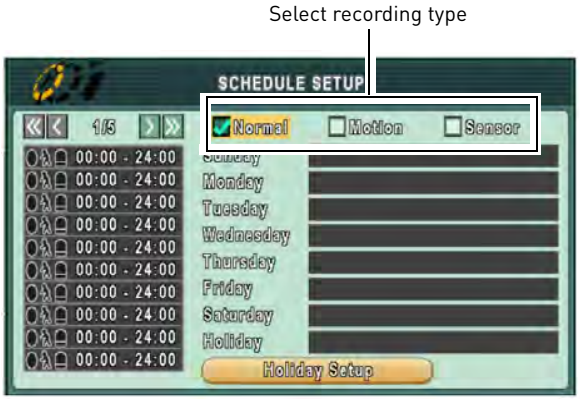
   NOTE: Start Time must come before the End Time. To create a schedule where the End

Time comes before the Start Time, create multiple schedules. For example, if you want to record from 17:00 - 9:00 (i.e. 5pm-9am), create one schedule for 17:00 - 24:00 and one for 00:00 - 9:00.

- **Dates**: Select the dates you wish to enable scheduled recording or motion recording (Monday~Sunday).
- **Holiday**: Select to enable holiday recording (holiday recording must be configured).

3. Right-click and click **Yes** to save your settings.
4. Repeat the steps above to configure additional schedules as needed. When finished, right-click and click **Yes** to save changes.

NOTE: In the Schedule Setup window, click the recording type: **Normal, Motion**, or **Sensor** to view the weekly schedule for each type. This setting applies to all schedules.



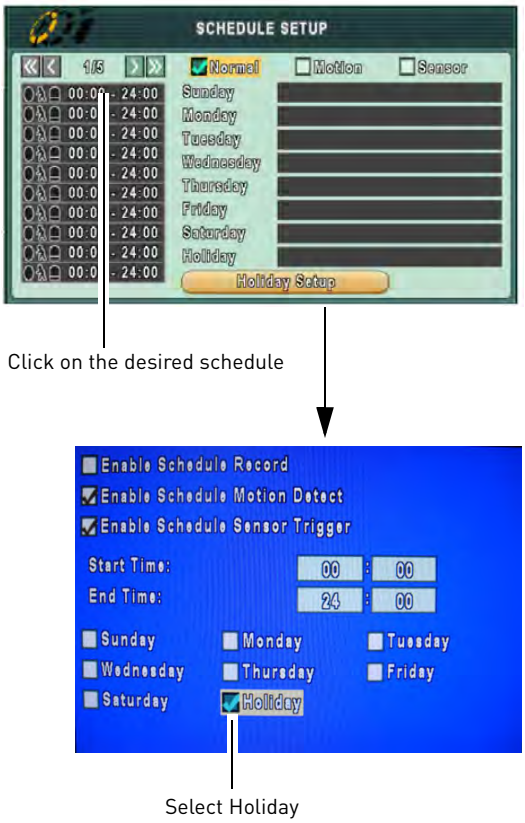
Holiday Setup

Holiday setup allows you to mark designated days as a "holiday". This allows you to set your schedule as a "holiday" recording, and gives you extra flexibility when creating a recording schedule.

To configure Holiday Setup:

1. Click the **Holiday Setup** button.

2. In the drop-down menu, select the month you want to enable holiday recording.
3. Click the dates of the month you wish to enable holiday recording. Repeat steps 2~3 to configure additional months.
4. Right-click and click **Yes** to save your settings.
5. From Schedule Setup, click on a schedule you wish to edit.
6. De-select all dates (Sunday~Monday). Select the Holiday checkbox to apply the holiday schedule.



7. Right-click and click **Yes** to save your settings.
8. Repeat steps 5-6 to configure additional holiday schedules as needed (i.e. for different recording types). Right-click and click **Yes** to save changes.

CAMERA SETUP

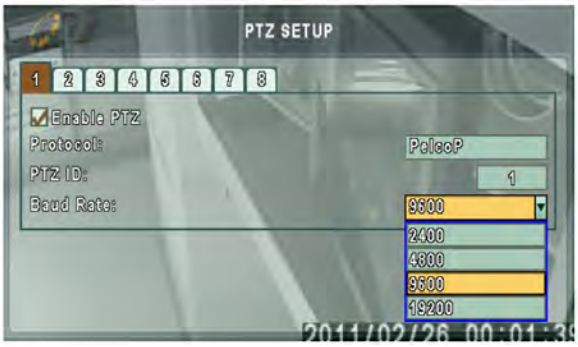
Configure camera color and brightness properties and camera name.

To configure the Camera Setup menu:

1. Click the channel number you wish to configure.
2. Configure the following:
   - **Mask:** Select the checkbox to blank out the channel. The channel continues to record, but you will not be able to see the channel.
   - **Sharpness, Brightness, Contrast, Saturation, Hue:** Click -/+ to increase or decrease the values.
   - **Name:** Enter the desired channel name.
   - **Volume (channel 1 only):** Adjust the volume input level. You must connect an audio input device to the DVR's Audio IN port (i.e self powered microphone or audio-enabled camera (not included)).
3. Right-click and click **Yes** to save your settings.

PTZ SETUP

Configure PTZ camera settings.



To configure the PTZ setup menu:

1. Click on the channel number that the PTZ camera connects to.
2. Configure the following:
   - **Enable PTZ**: Select the checkbox to enable the PTZ camera.
   - **Protocol**: Select the PTZ camera's protocol.
   - **PTZ ID**: Enter the PTZ ID.
   - **Baud Rate**: Enter the PTZ baud rate.

   NOTE: Refer to your PTZ camera manufacturer for configuration details.
3. Right-click and click **Yes** to save your settings.

Controlling the PTZ camera

To control your PTZ camera:

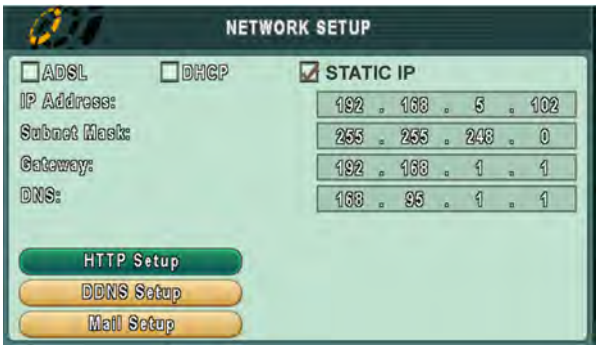
1. Double-click the channel that the PTZ camera connects to, so that you are in full screen mode.
2. Right-click and click **PTZ Control**.
3. Use the PTZ controls to manipulate the camera.

PTZ Control Details

- : Cancel all PTZ functions.
- : Assign preset number.
- : Go to preset.
- : Save current position as a preset.
- : Activate PIP (not supported on all cameras).
- : Pause image (not supported on all cameras).
- : Activate zoom.
- : Press to pan and tilt camera.
- 1 2 3 4 5 6 7 8 : Auxiliary "AUTO", and number input keys.
- : Backup settings (not supported on all cameras).
- **ZOOM**: Click +/- to zoom in and out.
- **FOCUS**: Click +/- to focus in and out.
- **IRIS**: Click +/- to open and close iris.

NETWORK SETUP

Configure network, email notification, and DDNS options.



Configuring Network Type

You can set the system to be in DHCP mode (the router assigns the DVR IP), or in Static IP mode (the DVR IP is fixed).

To change the network type:

1. Click the **DHCP**, or **STATIC IP** checkbox.
   - If you select DHCP, the router assigns your DVR an IP address.
   - If you select STATIC IP, beside the IP Address, Subnet Mask, and Gateway fields, enter the appropriate IP numbers.
2. Right-click and click **Yes** to save your settings.

ADSL

Use the ADSL setting to connect the DVR directly to a ADSL modem, without the use of a router.

To configure ADSL settings:

1. Click the **ADSL** checkbox.
2. Beside USER ID, enter the ISP's user ID.
3. Beside Password, enter the ISP password.
4. Right-click and click Yes to save your changes.

HTTP Setup

The HTTP Setup menu allows you to change the system port number and video streaming quality during remote viewing.

To configure the HTTP Setup menu:

1. Configure the following:
   - **ENABLE:** Select the ENABLE checkbox to customize the system resolution and frame rates during remote viewing.
   - **PORT:** Enter the system port number (by default, 80).
   - **No**. : Select the channel you wish to configure.
   - **Resolution**: Select from QCIF or CIF resolution.

     NOTE: QCIF: 180x120(NTSC) / 180X144(PAL)

     NOTE: CIF: 360x240(NTSC) / 360X288(PAL)
   - **Quality**: Select the video quality. Choose from LOW, MIDDLE, HIGH, SUPER or ULTRA.
   - **F/S**: Enter the desired channel frame rate.
2. If desired, click the **Auto** button to allow the system to assign maximum frame rates across all channels.
3. Right-click and click **Yes** to save your settings.

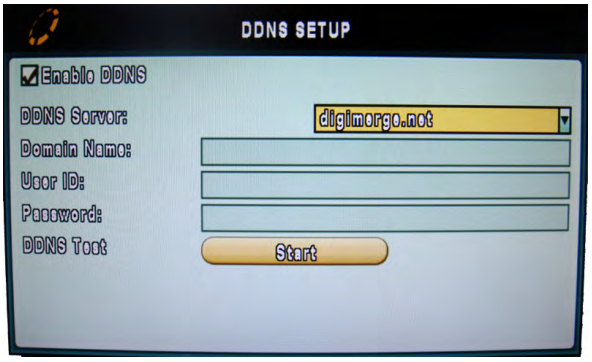
DDNS Setup

The DDNS Setup window allows you to enter your Digimerge DDNS settings in the DVR. This step is required for remote access.

Pre-requisites:

- Create a Digimerge DDNS account.
- Port forward the DVR port number to your router (by default, port 80).
- Have your DDNS User ID, password, and domain name ready.

For details on remote connectivity, see “Appendix B: Setting up Remote Viewing” on page 98.



To configure DDNS settings:

1. Beside Enable DDNS, select the checkbox to enable DDNS.
2. Enter the following:
   - **Domain Name**: Enter the DDNS domain name. For example, if your DDNS address is tomsmith.digimergeddns.net, enter **tomsmith**.
   - **User ID**: Enter the DDNS user ID (emailed to you during the DDNS account creation process).
   - **Password**: Enter the DDNS password (emailed to you during the DDNS account creation process).
3. Under DDNS TEST, click the **Start** button to test the connection. If you receive a "succecss" message, then DDNS is properly configured.

Connecting to your system

After you have port forwarded the required port, created a DDNS account, and enabled DDNS on your system, you must enter the DDNS URL into Internet Explorer to access your DVR.

The DDNS URL must include **http://** , the name of your DDNS URL, **followed by a colon, then the port number of your DVR.**

For example:

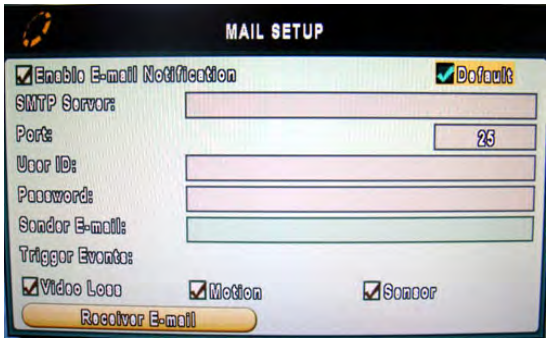
http://tomsmith.digimerge.net:80

DDNS URL Port Number

NOTE: If you change your default port number (port 80) to a different port, you still need to enter your port number after the DDNS address.

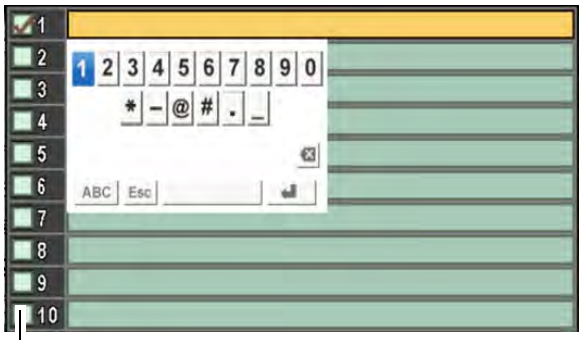
Mail Setup

The system can send out email notification if an event occurs (i.e. motion event).



To enable the Digimerge DDNS server:

1. Configure the following:
   - **Enable E-mail Notification**: Select the check box to enable email notifications.
   - **Default**: Select the checkbox to use the Digimerge email server.
   - **Sender E-mail**: Enter the email that appears to the receivers.
   - **Video Loss, Motion, Sensor**: Select the type of events you want to receive. For example, you can configure the system to send out motion email alerts only
2. Click the **Receiver E-mail** button.
3. Enter the following:



Checkbox

   - In the blank fields, enter up to 10 email addresses that will receive email notifications from the system.
   - Click the checkbox beside the email to enable the email from receiving notifications.
4. Right-click and click **Yes** to save your settings.

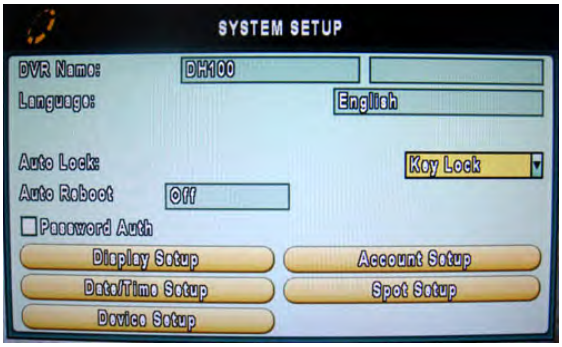
To use a custom email server:

1. De-select the Default checkbox.
2. Enter the following:
   - **SMTP Server**: Enter the SMTP server of your email server.
   - **Port**: Enter the email server's port number.
   - **User ID**: Enter your email server's ID.
   - **Password**: Enter your email server's password.
   - **Sender E-mail**: Enter the email you want the receiver to see when receiving notifications.
   - **Trigger Events**: Select the type of events that you want the system to notify you about. Select from **Video Loss, Motion**, or **Sensor**.

3. Right-click and click **Yes** to save your settings.
4. Click the **Receiver E-mail** button.
5. Enter up to 10 email addresses that will receive email notifications from the system.
6. Right-click and click **Yes** to save your settings.

SYSTEM SETUP

Configure the system display setup, date and time, device setup, account setup, and SPOT monitor setup.



To adjust the System Setup menu:

1. Configure the following:
   - **DVR Name**: Enter the desired DVR name.
   - **Language**: Select the DVR language.
   - **Auto Lock**: Select from Disable, Key Unlock, Key Lock. You must also select the **Password Auth** checkbox to enable the Auto Lock feature.
   - **Auto Reboot**: Configure how often the system reboots. This improves system stability by having it reboot within a set time. Select from **Every Day** or **Every Week**.
   - **Password Auth**: Select the checkbox to enable password authorization before the user can configure the system.
2. Right-click and click **Yes** to save your settings.

Display Setup

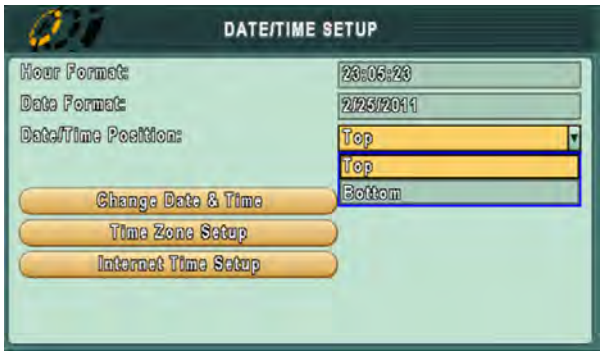
The Display Setup menu allows you to configure system OSD settings, and Auto Sequence duration.

To adjust the Display Setup settings:

1. Configure the following:
   - **Auto-Seq Interval (Seconds)**: Enter the auto-sequence interval time (i.e during sequence view, the camera changes every 5 seconds).
   - **Show OSD:** Select or deselect the checkbox to show/hide the OSD.
   - **Show DVR Status**: Select or deselect the checkbox to show/hide the DVR status icons.
   - **Show Date/Time**: Select or deselect the checkbox to show/hide the system time.
   - **Show Channel Name**:Select or deselect the checkbox to show/hide the channel name.
   - **Video System**: Select the video output type. Select from **NTSC, PAL**, or **Auto**. When selecting auto, the system attempts to detect the resolution type of the monitor.
   - **Border Color**: Click -/+ to adjust the screen border colors.
2. Right-click and click **Yes** to save your settings.

Date/Time Setup

Configure the system date and time using the Date/Time Setup menu.



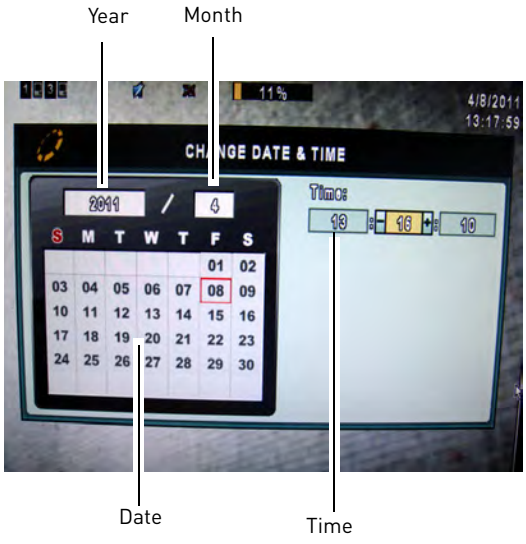
To configure the Date/Time setup:

1. Configure the following:
   - **Hour Format**: Select how the system displays the system time.
   - **Date Format**: Select how the system displays the system date.
   - **Date/Time Position**: Select where the system date and time is displayed.
2. Right-click and click **Yes** to save your settings.

Changing the System Time

To change the system time

1. Click the **Change Date & Time** button.
2. Enter the year, month, date, and time.



3. Right-click and click **Yes** to save your settings.

Changing the Time Zone

To change the time zone:

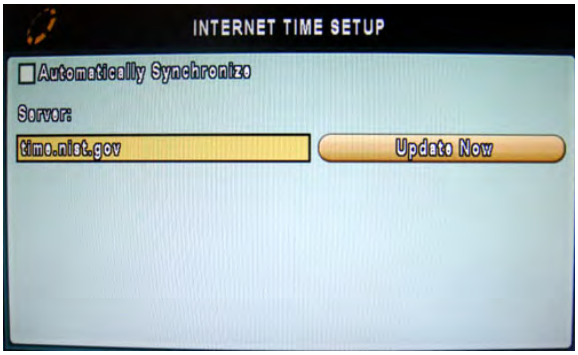
1. Click **Time Zone Setup**.
2. Configure the following:

   - **Select Time Zone**: Select the desired time zone. Choose from **GMT-/ GMT/ GMT+**
   - **Daylight Saving Time**: Select or deselect the checkbox to enable or disable daylight saving time.

3. Right-click and click **Yes** to save your settings.

Configuring a Time Server

You can enter a time server so that the DVR automatically syncs its system time.



To configure the time server:

1. Click **Internet Time Setup**.
2. Select the **Automatically Synchronize** checkbox.
3. Under Server, enter the time server name.
4. Click **Update Now**. The system provides a success or failure message.
5. Right-click and click **Yes** to save your settings.

Device Setup

The device setup menu allows you to adjust system Buzzer, relay, and video output settings.

To adjust the mouse acceleration speed:

1. Beside Mouse Speed, click **-/+** to adjust the mouse acceleration speed.
2. Right-click and click **Yes** to save your settings.

Buzzer & Relay Setup

The Buzzer & Relay Setup menu allows you to configure the type of events that will trigger a relay (alarm block) to activate, or the system buzzer to beep, when an event occurs.

To adjust the Buzzer & Relay Setup settings:

1. Configure the following:

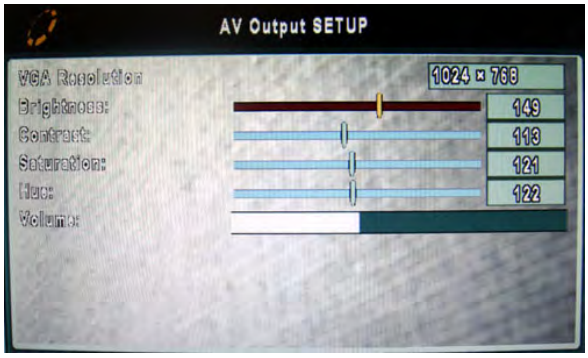
   - **Key Tone**: Select the checkbox to enable/ disable the system "beeps" when you click the mouse.
   - **Buzzer**: Select the events that will trigger the system to "beep" when an event occurs (HDD Error, Video Loss, Motion or Sensor event).

- **Relay**: Select the events that will trigger the system relay (alarm block) to trigger when an event occurs (HDD Error, Video Loss, Motion or Sensor event).

2. Right-click and click **Yes** to save your settings.

AV Output SETUP

The AV Output Setup menu allows you to configure the system output resolution, brightness ,and audio output volume.

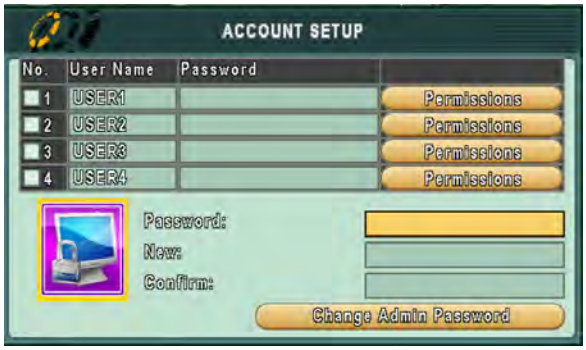


To adjust the AV Output Setup settings:

1. Configure the following:
   - **VGA Resolution**: Select from 800 x 600 / 1024 x 768 / 1280 x 1024
   - **Brightness, Contrast, Saturation, Hue**: Click -/+ to adjust the color values.
   - **Volume:** Drag the volume bar to adjust the output volume.
2. Right-click and click **Yes** to save your settings.

Account Setup

The Account Setup menu allows you to configure user accounts, and change the admin password.



To Add a new user:

1. Under "No.", select the checkbox.
2. Under "User Name", enter the desired user name.
3. Under "Password" enter the desired user password.
4. Click **Permission**.

5. Beside "Password Expiry Date", select the checkbox if you want the user password to expire. Click the date, and enter the Year, month, and date you want the password to expire.
6. Select the type of menus you want the user to have access to (i.e. Setup, PTZ, Utility etc.)
7. Under "Remote & Playback Mask", select the channels that you do not want the user to have access to during remote viewing and playback.
8. Right-click and click **Yes** to save your settings.

To change the Admin password:

1. Under "Password", enter the current administrator password.

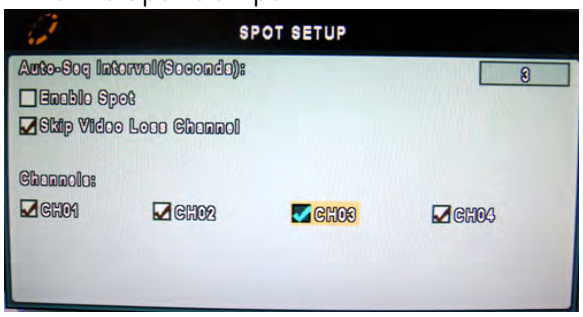
Enter the old and new admin password

2. Under "New" and "Confirm", enter the new admin password.
3. Click the **Change Admin Password** button to update the admin password.

Spot Setup

The Spot Setup menu allows you to configure the output settings of the spot out monitor. An external monitor connected to the Video OUT port can be configured as a spot out monitor.

NOTE: 16-channel models only: External monitors connected to the Spot OUT port are automatically configured as a spot out monitor and cannot be used as the main output. Use the settings below to configure spot out settings for the monitor connected to the Spot OUT port.



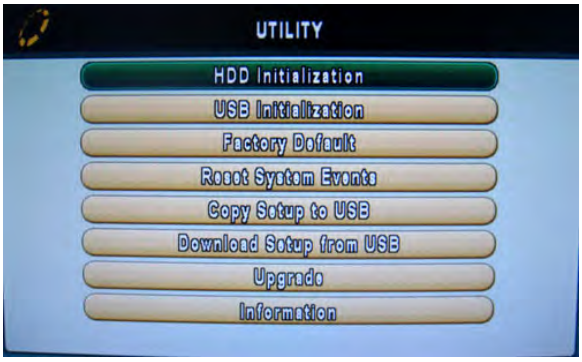
To configure the Spot Setup settings:

1. Configure the following:
   - **Auto-Seq Interval (Seconds):** Enter the duration (in seconds) of the dwell time during sequence mode.
   - **Enable Spot (4/8-channel models only):** Select to enable sequence mode on the monitor connected to the Video OUT port.

     NOTE: To enable the monitor connected to Video OUT as the main output, deselect the Enable Spot checkbox.
   - **Skip Video Loss Channel:** Select to skip channels with video loss.
   - **Channels:** Select the channels that display on the spot out monitor.
2. Right-click and click **Yes** to save your settings.

UTILITIES

The Utility menu allows you to format hard drives, restore system defaults, upgrade the system firmware, and configure other system settings.



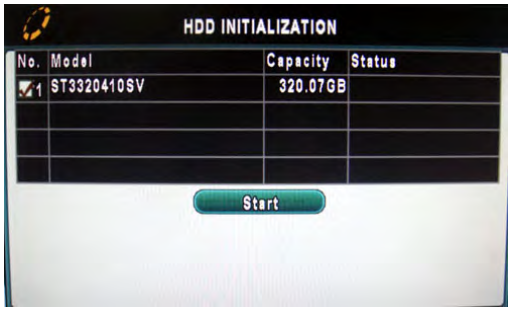
HDD Initialization

The HDD Initialization is used to format the system hard drive.

WARNING: Formatting the hard drive permanently erases all data.

To format the system hard drive:

1. Click **HDD Initialization**.



2. Under "No.", select the checkbox beside the hard drive you wish to format.
3. Click the **Start** button.
4. Click **Yes** again on the warning to format the hard drive.
5. When formatting is complete, a "Success" message appears under the Status column.

USB Initialization

To format a USB drive:

> **WARNING**: Formatting the USB drive permanently erases all data.

1. Insert a USB drive to the front or rear panel.
2. Click **USB Initialization**.
3. Click **Yes** on the warning to format the USB drive.
4. Wait for a success message, and then remove the USB drive. Right-click to exit.

Factory Default

To restore factory default settings:

1. Click **Factory Default**.
2. Click **Yes** on the warning to restore system defaults.

Reset System Events

To reset System Events:

1. Click Reset System Events button.
2. Click **Yes** on the warning to system events.

Copy Setup to USB

Use the Copy Setup to USB function to copy your system settings to a USB drive. You can copy the settings back onto the DVR for later use.

To copy the system setup settings to the USB:

1. Insert a blank USB key into the front or rear panel of the system.
2. Click **Copy Setup To USB**.
3. Click **Yes** on the warning to copy the settings to your USB key.

Download Setup from USB

After you have copied the system settings to a USB key, you can download the settings to the DVR.

To download system settings to your DVR:

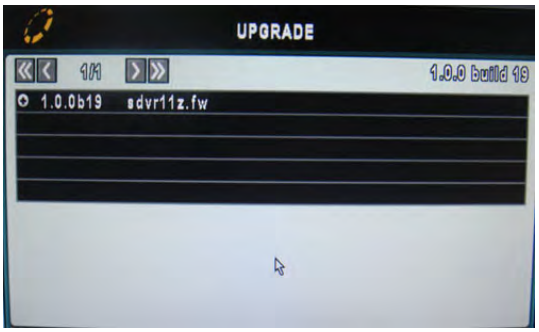
1. Insert the USB key that contains the system backup settings.
2. Click **Download** Setup from USB
3. Click **Yes** to begin copying the settings to your system.

Upgrading the System Firmware

To upgrade the system firmware:

1. Download the firmware from www.digimerge.com from the DH100's product page.
2. Copy the firmware to a USB key.

   NOTE: Ensure only the firmware is in the USB key. A firmware file name looks like this: **sdvr11z.fw**
3. Insert the USB key to the front or rear panel of the system.
4. Click the **UPGRADE** button.
5. Select the firmware from the list.



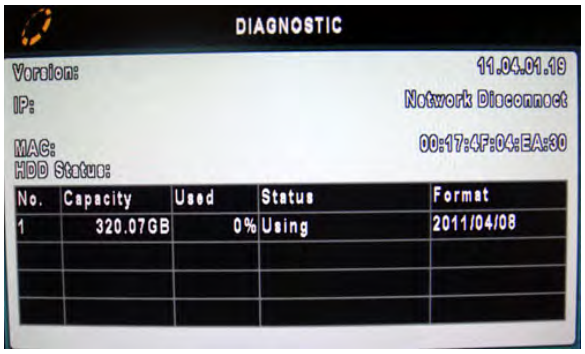
6. Click **Yes** to begin the firmware upgrade.

7. The system beeps several times, and the screen turns black. This is normal.The screen will remain black for up to 5 minutes, then beep again.

   Wait for the system to boot into the main viewing mode for the firmware upgrade to complete. Once the system boots into live mode, the firmware is updated.

   NOTE: Do not remove the USB key during the firmware update process.

Information



- Click the **Information** button to display network and hard drive information, and firmware version.
- You can also access the Information window by pressing the **INFO / 10+** button on the remote control (4/8-channel) or by pressing the **INFO / 10+** button 2 times (16-channel).

CMS-DH CENTRAL MANAGEMENT SOFTWARE

CMS-DH is a central management software that allows you to view and manage up to **300** DH100 series DVRs.

System Requirements

Your system must meet the system requirements below:

Minimum system requirements

- Windows XP SP 1
- Pentium 4, 2.4Ghz
- 512 MB RAM
- 64 MB AGP video card
- 1024 x 768 monitor resolution
- Direct X 7.0
- 100MB Ethernet LAN
- 10 GB free storage space

Recommended system requirements

- Windows XP SP 1
- Pentium 4, 3.0 Ghz
- 1GB RAM
- 256 MB, PCI-E video card
- 1600 x 1200 monitor resolution
- Direct X 9.0
- 100MB Ethernet LAN
- 40 GB free storage space

Prerequisites

- Port forward port **80** (default port) to the router that the DVR is connected to.
- Create a DDNS account.
- Enable DDNS in the DVR.
- Enter the DDNS information into the DVR.
- DVR must have access to the Internet or Local Area Network (LAN).

Installing CMS-DH

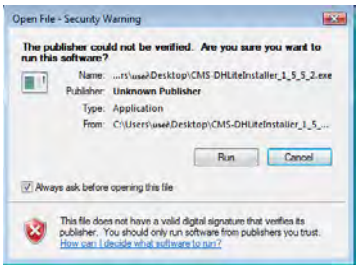
To install CMS-DH:

1. Insert the software CD, and click the **Install CMS-DH** button. Follow the directions to download the CMS-DH software from Digimerge's website.

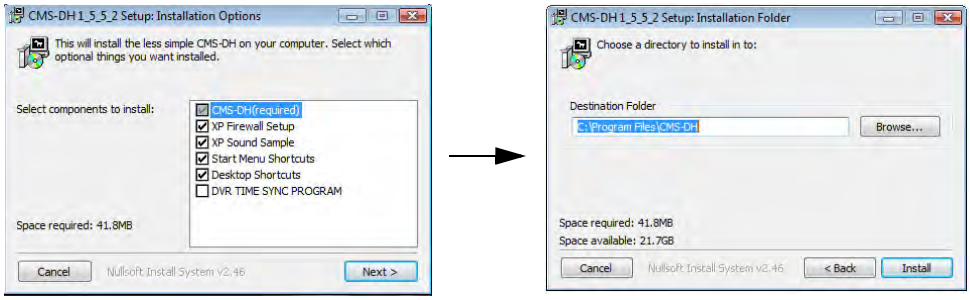
   NOTE: You can also go to **www.digimerge.com**, and search under the DH100's product page for the CMS-DH software.

2. Double-click the CMS-DH setup file.

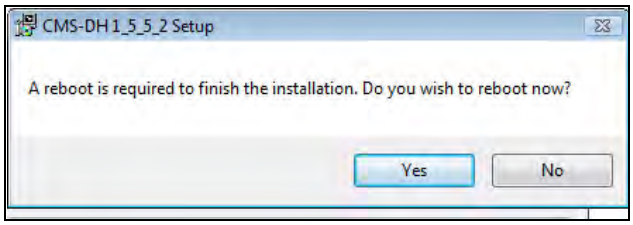
   NOTE: You may receive installation warnings. This is normal. Accept the security warnings to continue.


Open File - Security Warning
The publisher could not be verified. Are you sure you want to run this software?
Name:
Publisher: Unknown Publisher
Type: Application
From:
Run
Cancel
Always ask before opening this file
This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust.
How can I decide what software to run?

3. Follow the on-screen instructions to install the software.



4. Click **Yes** to restart the computer when prompted.



Starting CMS-DH

To start CMS-DH:

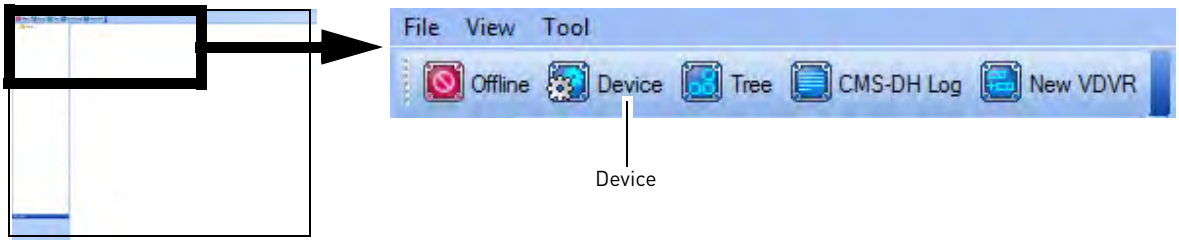
- Double-click the CMS-DH icon ( ) on the desktop.

Adding a DVR from the local area network (LAN)

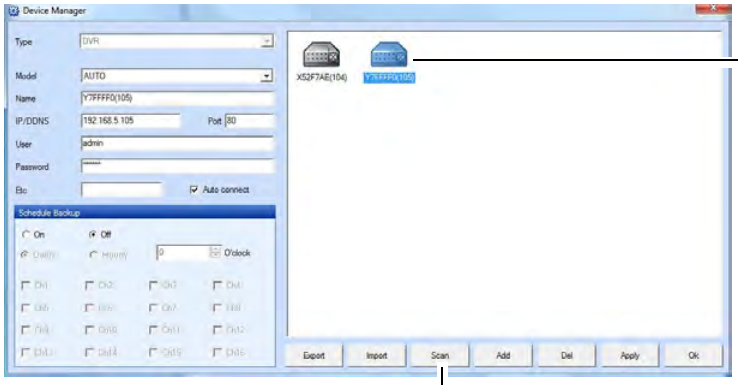
Once you open CMS-DH, you can add a DVR.

To add a DVR to CMS-DH:

1. Click **Device**.

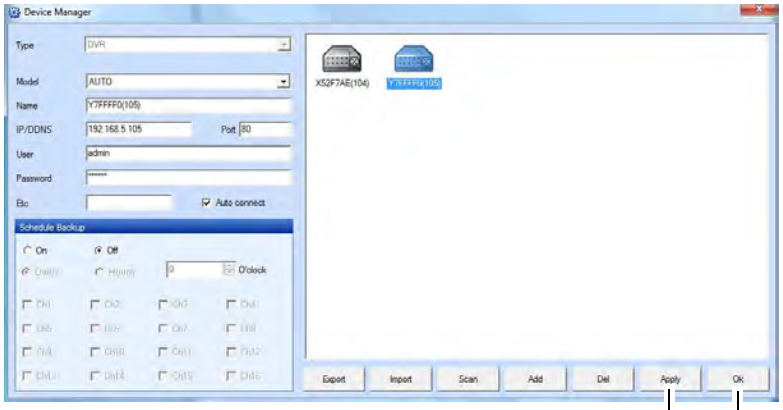


2. Click **Scan** to locate connected DVRs on the network.



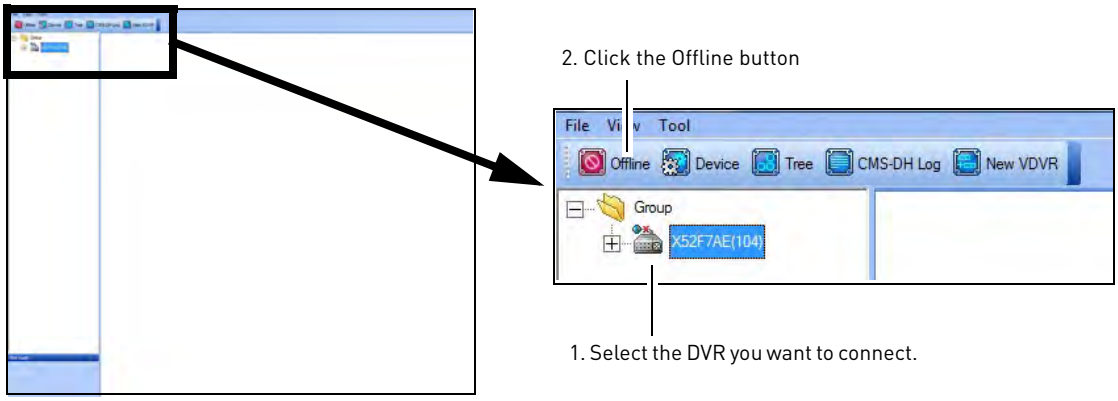
NOTE: By default, when adding a DVR from the LAN, the DVR name will automatically be named the last 3 digits of the IP address.

3. Click on the DVR you wish to add to CMS-DH, and then click **Apply→OK**.
   • The DVR appears on the left panel.

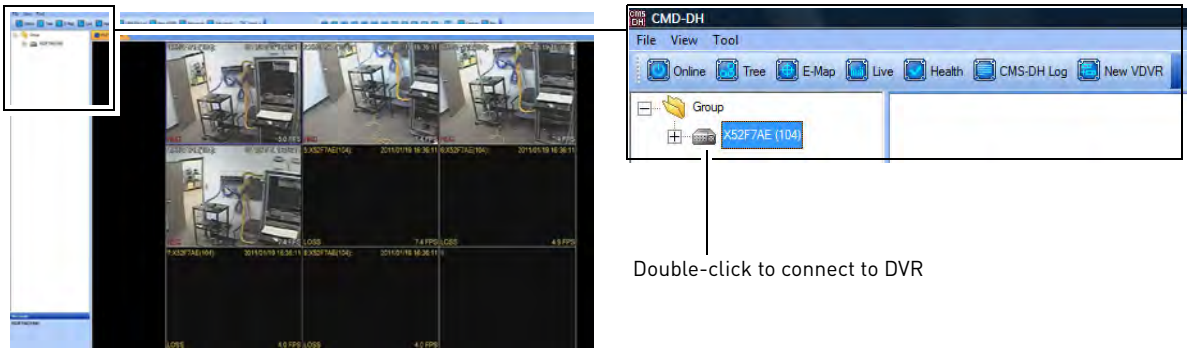


> If you have changed the default password of the DVR, you must select the DVR from the list, then manually re-enter the new password in the Password field, and then click Apply and then OK.

4. Click on the DVR you want to connect, and click the **Offline** button.



5. Double-click the name of the DVR to connect to the system.



NOTE: To add another DVR from the network, you must click the **Online** button to disconnect the DVR. Then repeat steps 1-5 to add the new DVR.

Adding a DVR using a DDNS address

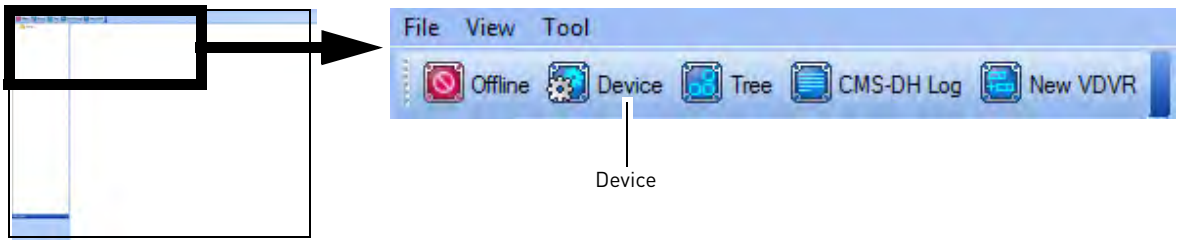
If you have DVR systems that have DDNS set up, you can add them to CMS-DH.

Prerequisites

- Create a DDNS account.
- Enter the DDNS information into the DVR locally.
- Port forward the required port (default, port 80) to the router.

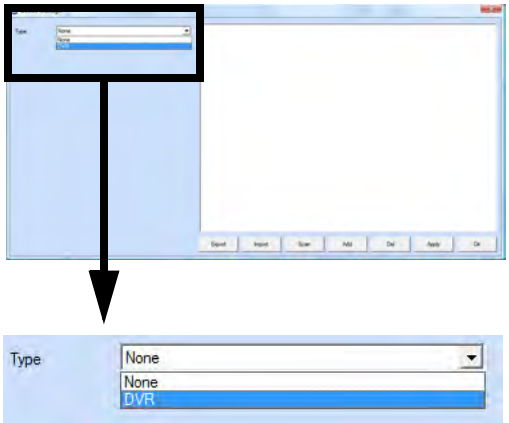
To add a DVR using a DDNS address:

1. Make sure the DVRs have been disconnected from CMS-DH. Click **Device**.

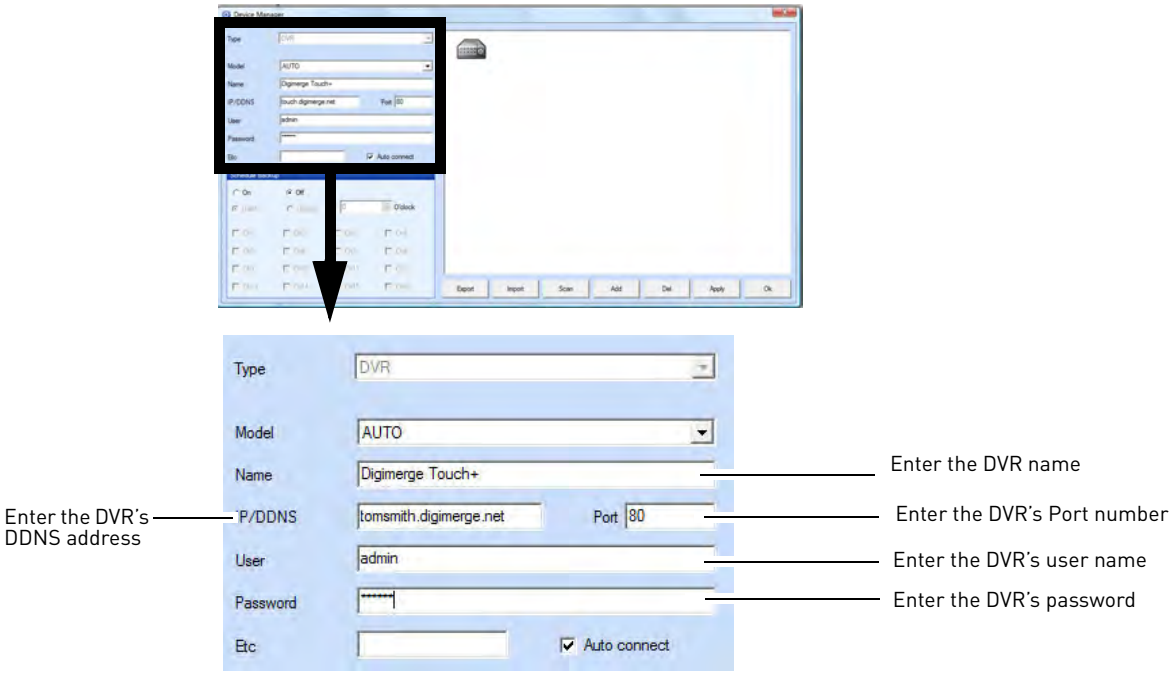


2. In the Device manager window, click **Add**.

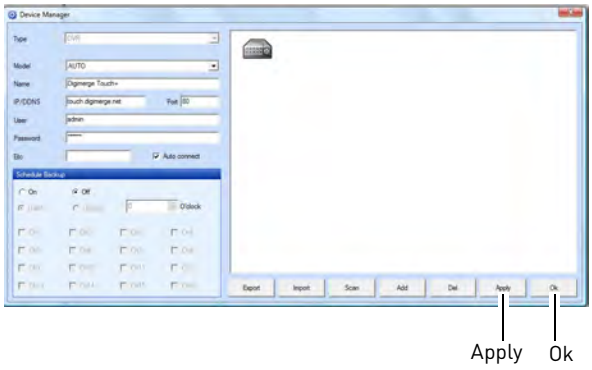
3. Beside the Type drop-down menu, select **DVR**.



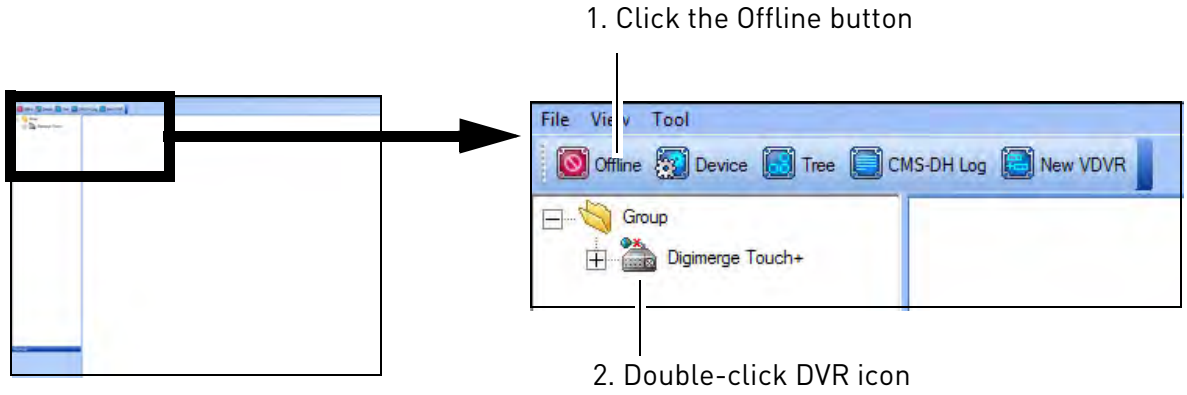
4. Enter the following into the blank fields:
   - **Name**: Enter the DVR name of your choice.
   - **IP/DDNS**: Enter the DVR's DDNS address (for example tomsmith.digimerge.net).
   - **Port:** Enter the DVR's port number (by default, port **80**).
   - **User**: Enter the DVR's user name (by default, **admin**).
   - **Password**: Enter the DVR's password (by default, **000000**).



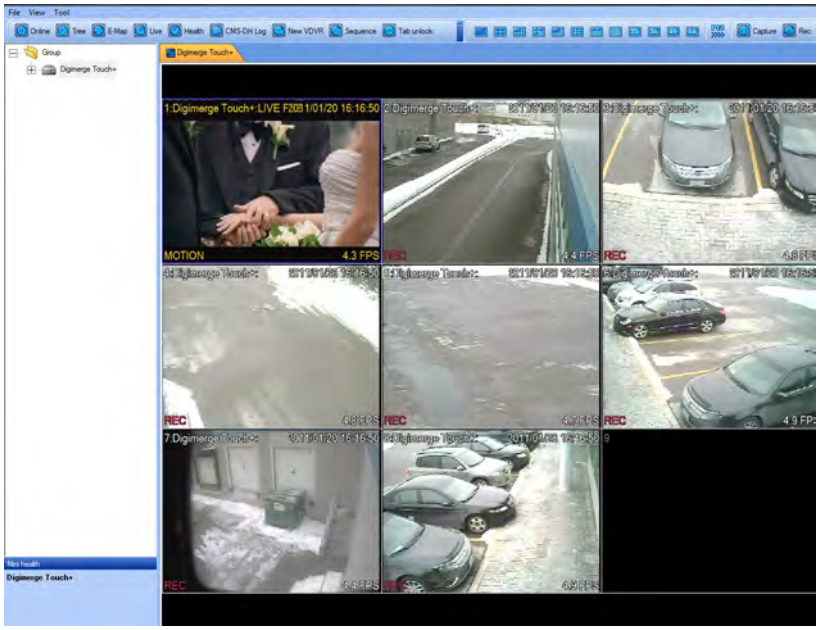
5. Click **Apply→Ok**.



6. Click the **Offline** button to connect to the DVR. Double-click the DVR icon to begin viewing.



Final Result



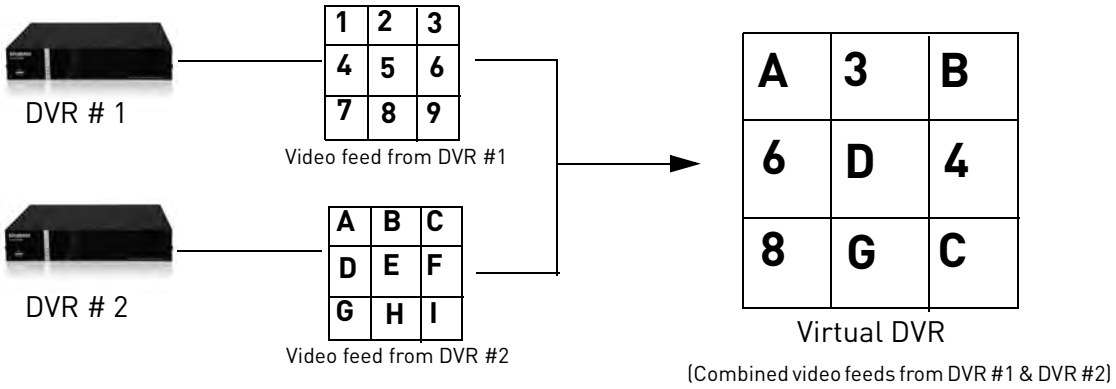
Once you have added the DVR, you can add multiple DVRs and view them in the tab. To switch DVR, click on the tabs near the top of the window.

Adding a Virtual DVR

A virtual DVR allows you to add video sources from multiple DVRs, into one main window.

Example

In the example below, multiple video sources from two DVRs are grouped into the Virtual DVR.

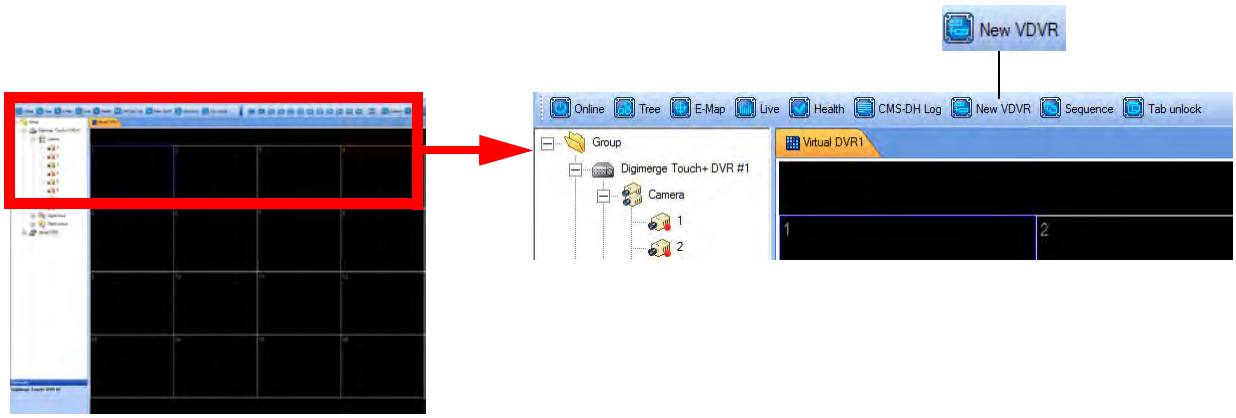


Prerequisites

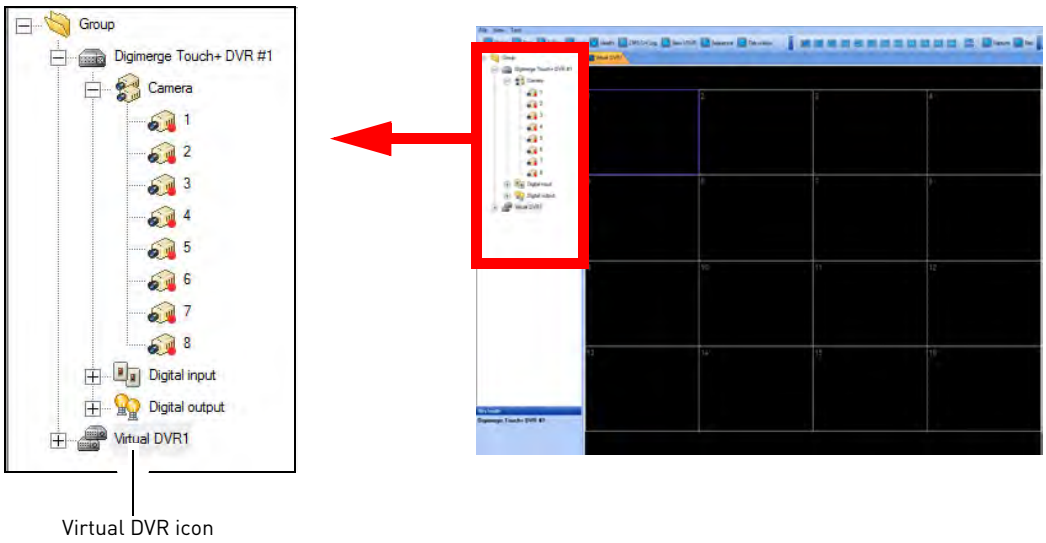
- Ensure the DVRs are online, and connected to CMS-DH.

To add a Virtual DVR:

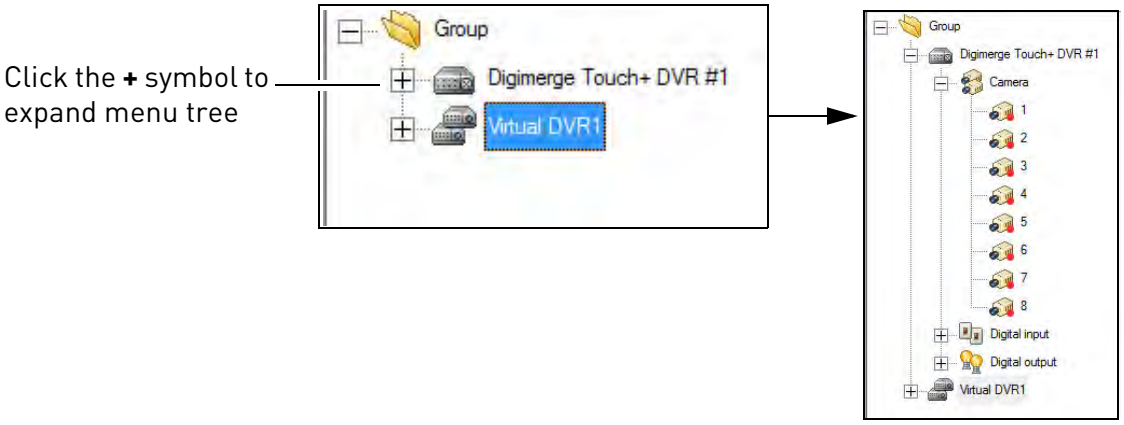
1. Click the **New VDVR** button (New VDVR).



2. Double-click the virtual DVR icon in the tree menu on the left.



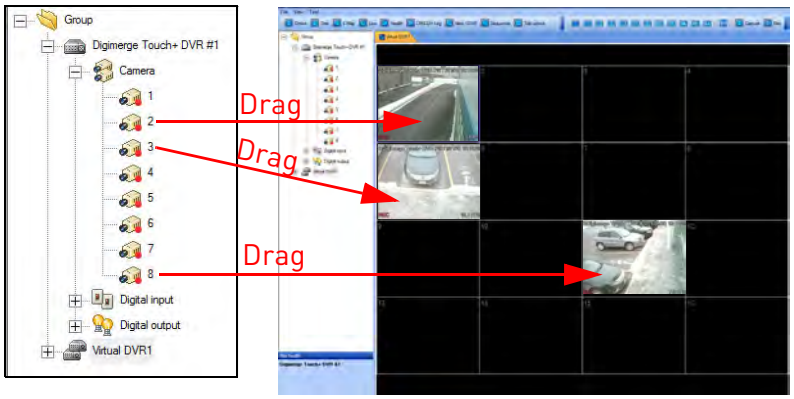
3. Click the **+** symbol to expand the DVR menu tree.



4. Drag the desired camera into the Virtual DVR window.

   NOTE: You can drag the camera into any desired channel in the virtual DVR.

   Example



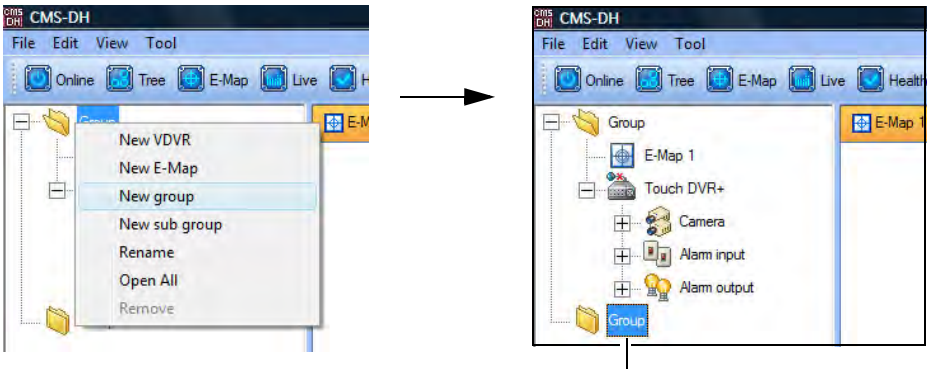
5. Repeat step 3-4 as required for different DVRs.

Creating New Group Folders & Sub folders

Creating group folders and sub-folders helps you organize multiple DVRs. For example, you can create a new folder for each different DVR.

To create group folders:

1. Right-click on the Group folder, then click **New Group**.



New Group folder

2. Drag the desired DVR into the new folder.

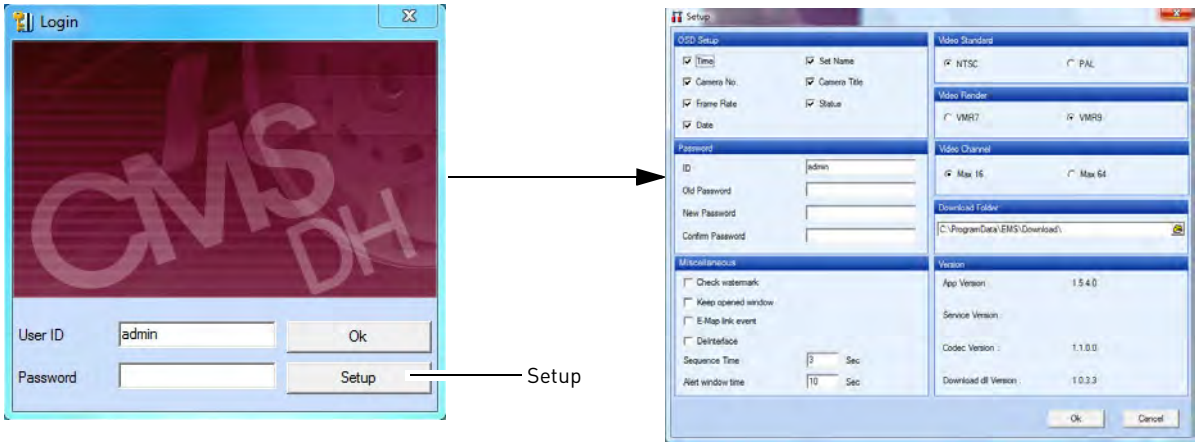
To create a sub-group:

- Right-click on the Group folder, then click **New sub group**.

Configuring General System Settings

To configure general system settings:

1. Open CMS-DH to access the Login window and then click **Setup** (Or, click **File→ Setup** once you are logged in to CMS DH)



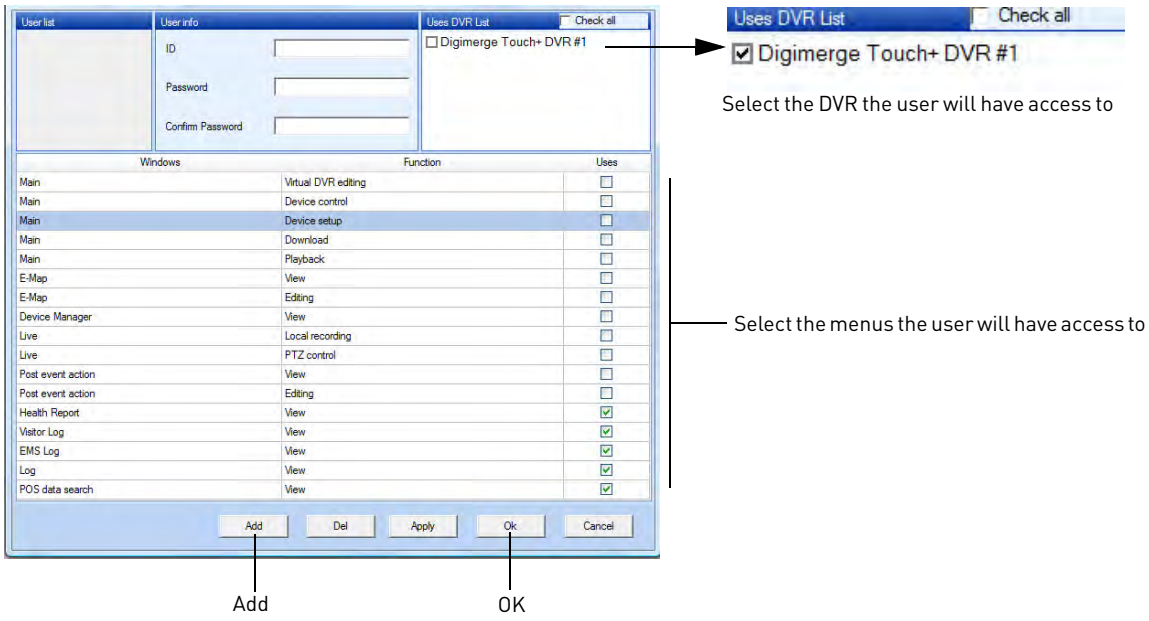
2. Configure the following in the Setup menu:
   - **OSD Setup:** Configure the on-screen display items that you want to appear in the channel (i.e. camera name, time, frame rate etc.).
   - **Password:** Change the CMS-DH login name and password. Enter your desired ID (user name) and password, and then click **OK** to save your settings.
   - **Miscellaneous:** Select the items you wish to enable:
     - **Check Watermark**: Not supported.
     - **Keep Opened Window:** Automatically re-opens the windows that were closed after you restart the program.
     - **E-Map Link Event:** When selected, the E-map will open pop-up windows when an event occurs (setup required).
     - **De-interlace:** Not supported.
     - **Sequence Time**: Enter the sequence time of each DVR.
     - **Alert Window Time:** Enter the amount of time the Alert window remains on screen.
   - **Video Standard:** Select from NTSC or PAL video output.
   - **Video Render:** Select the DirectX type of your system. Select VMR7 if your system uses Direct X 7.0. Select VMR9 if your system uses Direct X 9.0.
   - **Video Channel:** Select the maximum amount of DVR channels that the software displays. Choose Max 16 for 16 maximum channels, Max 64 for 64 maximum channels.
   - **Download Folder:** Select the download destination on your hard drive. The download folder stores saved videos and images. Click the browse button ( ) to select the default download directory.

Adding Users

You can add multiple users to CMS-DH, specifying the DVR menus that each user is allowed to access.

To add a new user:

1. Log in to CMS-DH.
2. Click **File→CMS-DH Account**.
3. Enter the following:
   - **ID:** Enter the desired user name.
   - **Password**: Enter the desired user password.
   - **Confirm Password**: Re-enter the user password.



4. Under the DVR list, click the checkbox to select the DVR the user will have access to.
5. Under 'Uses' click the checkbox to select the type of menus the user will have access to.
6. Click **Add** and then click **OK** to save your settings.

To remove a user:

1. Log in to CMS-DH as the administrator (default user name: **admin**, default password: **0**)
2. Click **File→CMS-DH Account**.
3. Click the user name that you wish to remove.
4. Click the **Del** button to remove the user.

Recording Video to the Hard Drive

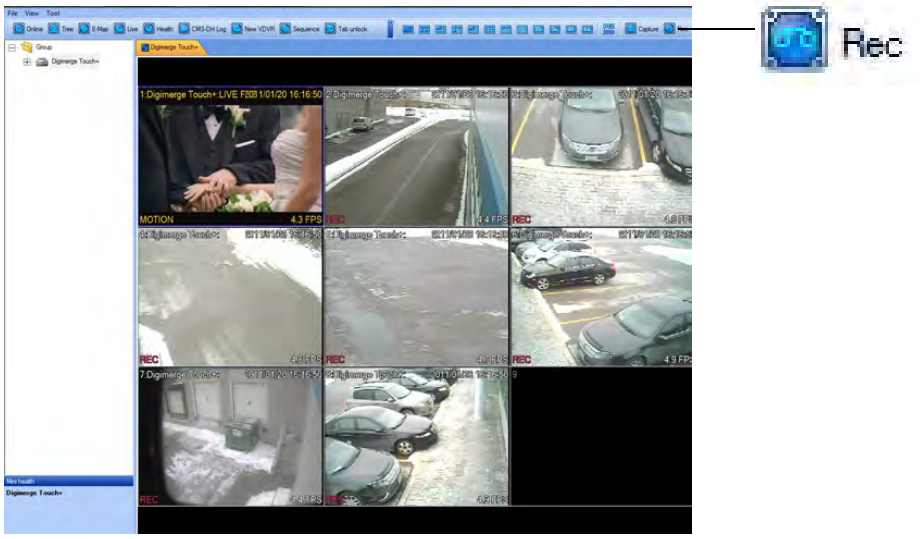
CMS-DH allows you to record video to your local hard drive. The amount of video that you can record depends on the size of your computer's hard drive.

To record video:

1. During live view, click the **Rec** button (Rec). The Rec button turns red.

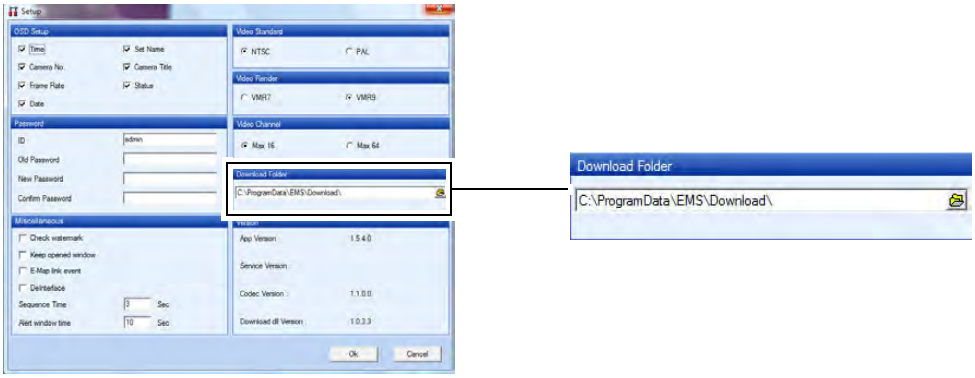
   NOTE: If you want to capture a single channel of video, double-click the channel to view the channel in full screen mode, and then click the **Rec** button.

   NOTE: If you want to capture all channels, ensure that you are viewing the DVR in split screen mode, and then click the **Rec** button.



2. Click the **Rec** button (Rec) again to stop recording.

   NOTE: The file is saved into the default save directory of the CMS-DH software. To locate the save directory of the video files, click **File→Setup**, and look under Download Folder to determine where the file is saved.

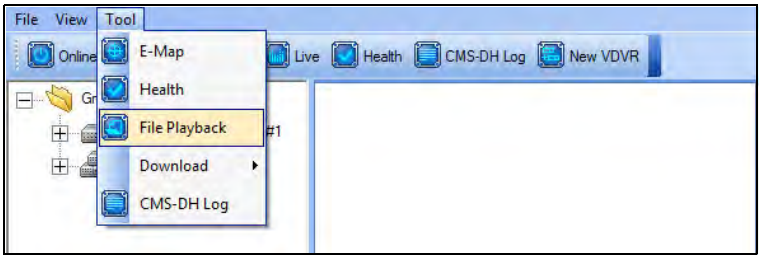


Playing Back Recorded Video

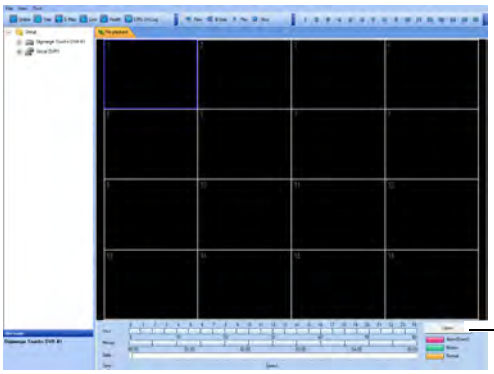
The video is saved as a proprietary file that is playable only by CMS-DH.

To play back previously recorded video files:

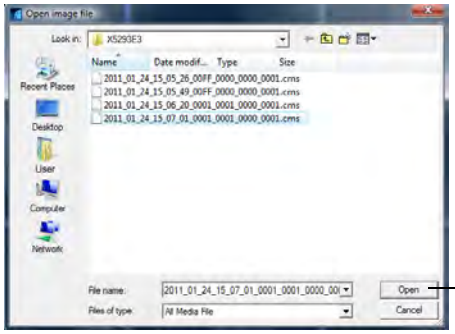
1. From the main window, click **File→File Playback**.



2. Click the **Open** button.



3. Select the desired file you wish to play and click **Open**.



4. Use the video playback controls to watch the video.

Remote Search

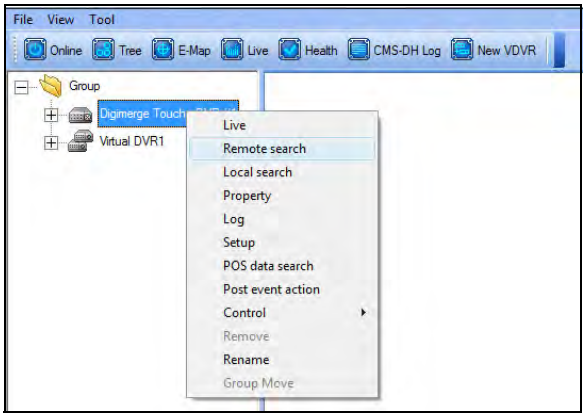
Remote search allows you to search for archived video on the DVR. **Note that only Normal Recording mode is supported for support search. Motion and Alarm search is not supported.**

Prerequisite

- Ensure you are connected to the DVR that you wish to search from.

To search for video:

1. Right-click on the DVR that you wish to search video from, then click **Remote Search**.



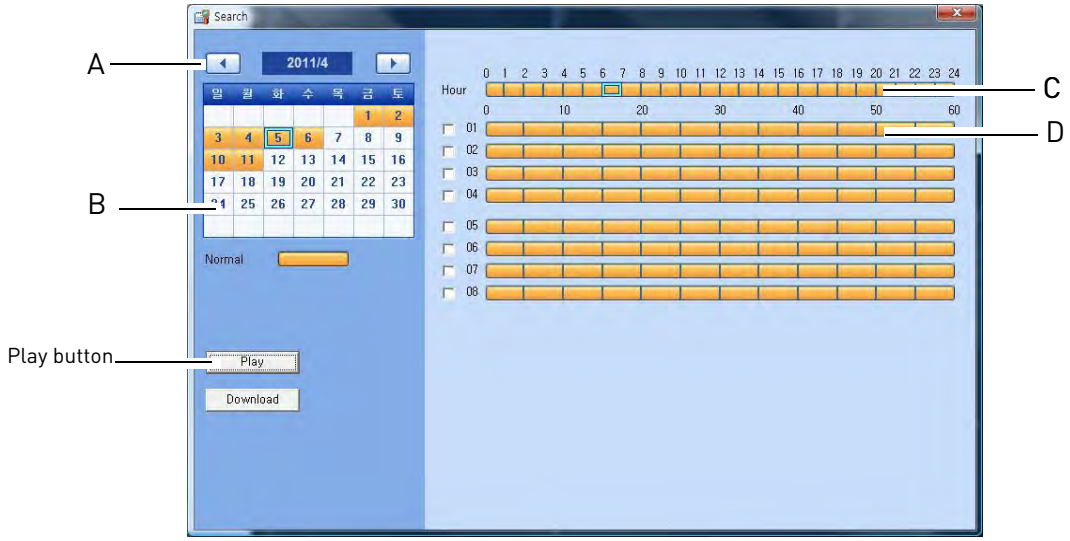
2. To search for the video:

   a. Click ◄ ► to select the desired month.

   b. Select the date of the video.

   c. Select the hour.

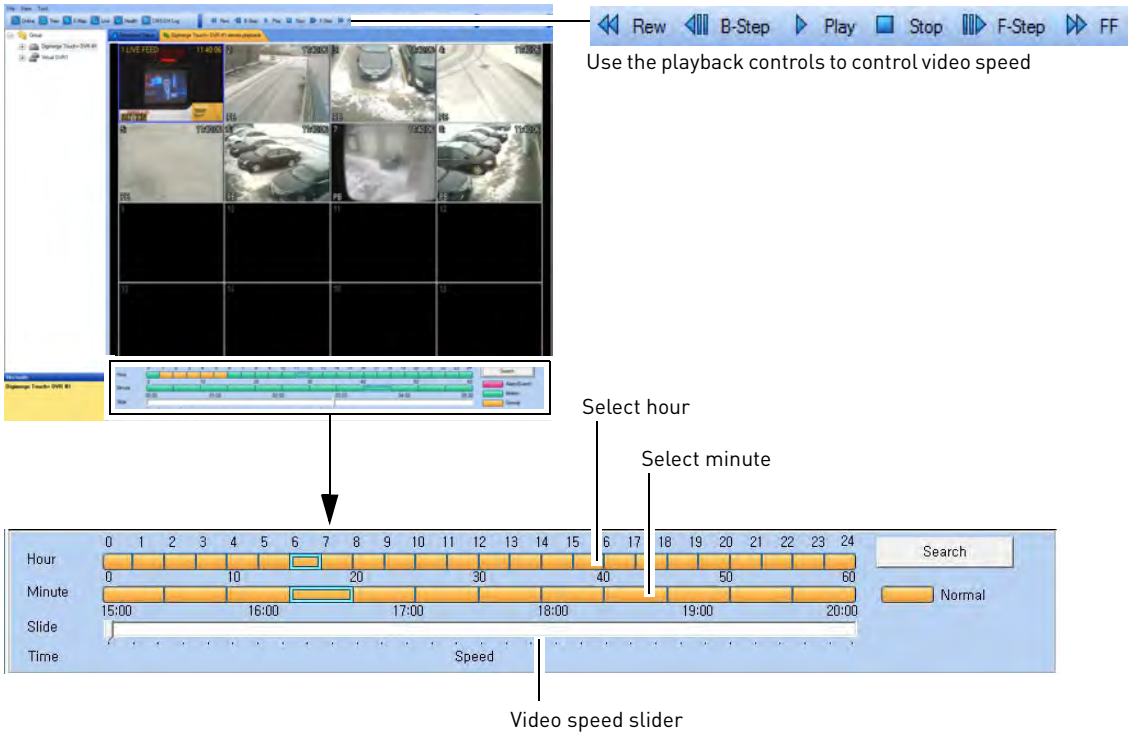
   d. Select the minute.



3. Click the **Play** button to begin watching the video.

Video Playback Controls

Once the video begins to play, use the video controls to manipulate video playback.



Local Search

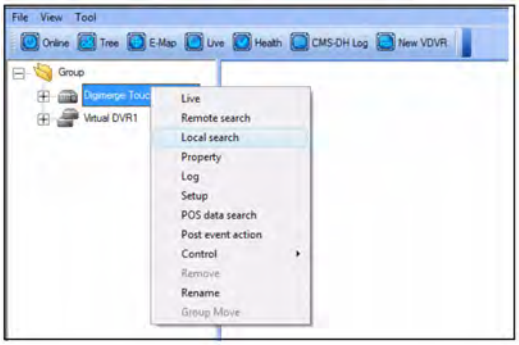
Local search allows you to search for video stored locally on the computer hard drive.

Prerequisite

Ensure you are connected to the DVR that you wish to search from.

To search for videos stored on your hard drive:

1. Right-click on the DVR that you wish to search video from, then click **Local Search.**



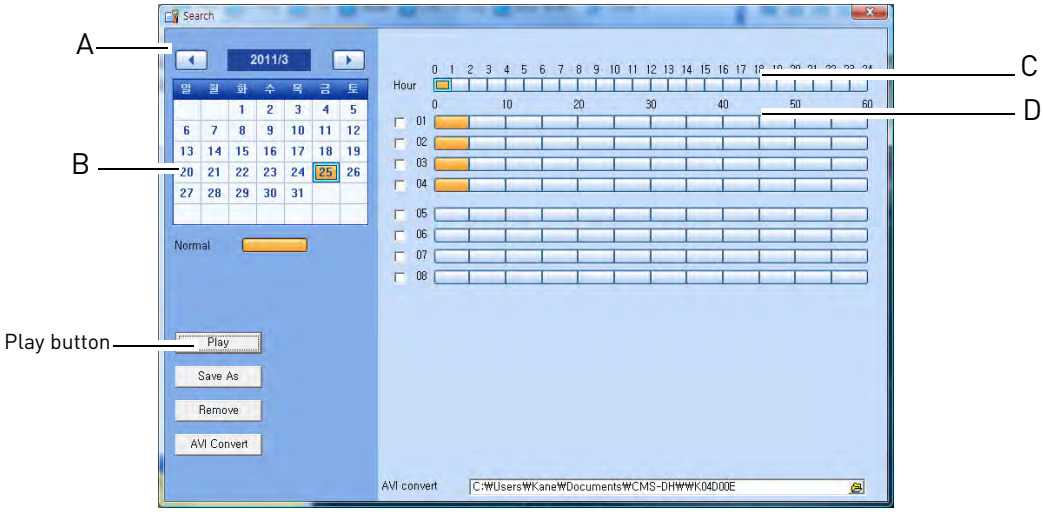
2. To search for the video:

   a. Click to select the desired month.

   b. Select the date of the video.

   c. Select the hour.

   d. Select the minute



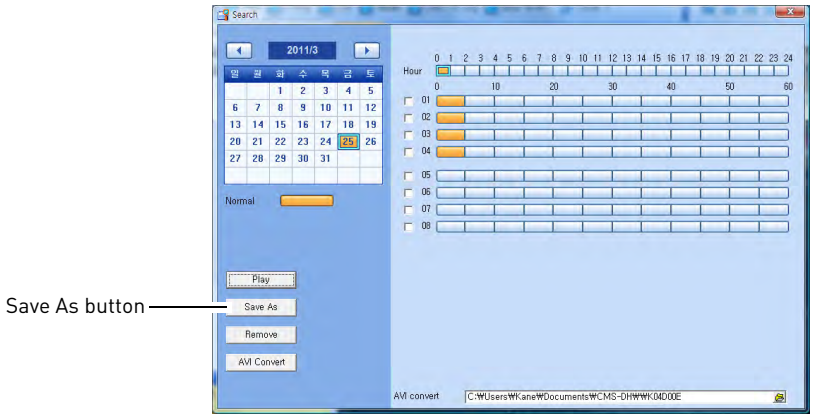
3. Click the **Play** button to begin watching the video.

Saving Video Files

You can save the proprietary video files to your local hard drive from the Search menu. The video file ends in a **.cms** extension, and requires CMS-DH for playback.

To save video files from the search menu:

1. Select the month, date, and time of the video.



2. Click the **Save As** button.
3. Select the desired save directory, and click **OK** to save the file.

Converting video files to AVI

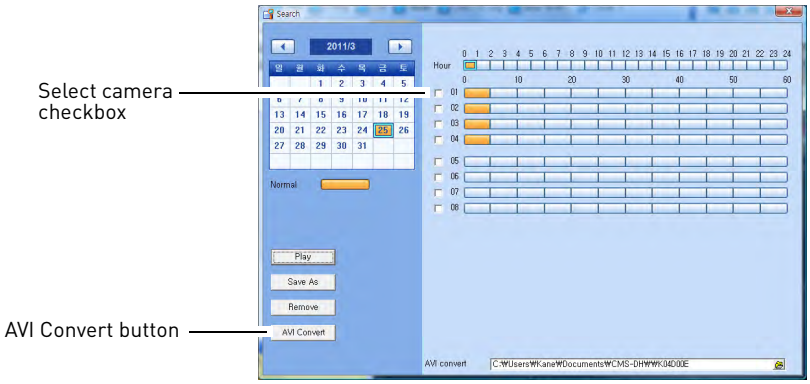
Converting proprietary .**CMS** video files to AVI allows you to play the video on a computer that does not have the CMS-DH software.

Prerequisite

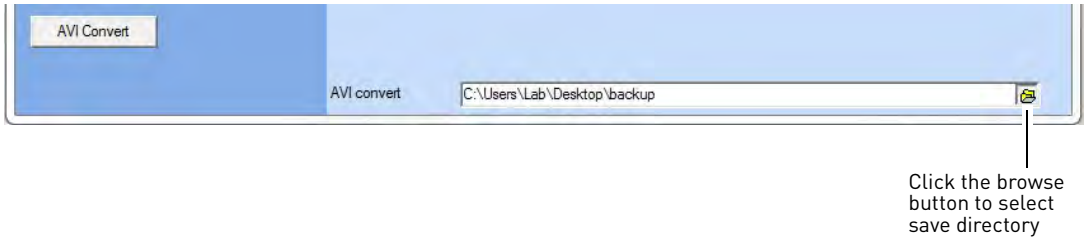
- Make sure that you are in the Local Search menu (Right-click on the DVR, and click **Local Search**)

To convert video files to .AVI:

1. Select the month, date, and time of the video.



2. Select the checkbox beside the camera you wish to back up video from.
3. Click the browse button ( ) and select the file output directory.
4. Click the **AVI Convert** button.
   - CMS-DH converts the file, and stores it in the output directory.



Schedule Backup

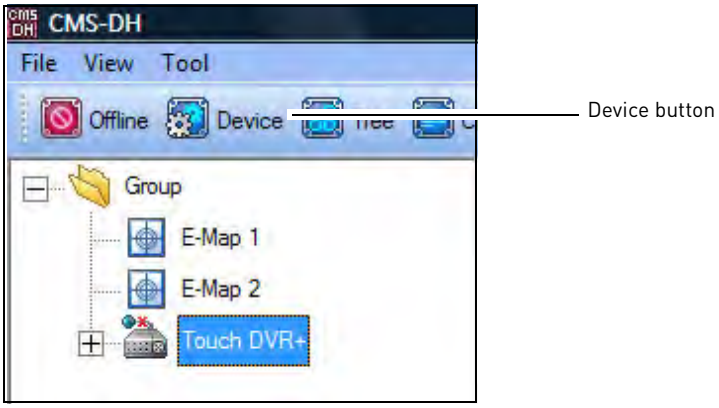
You can schedule regular backup of video to your local hard drive. The schedule can be configured to back up 24 hours of video, or during a specified time only.

Prerequisite

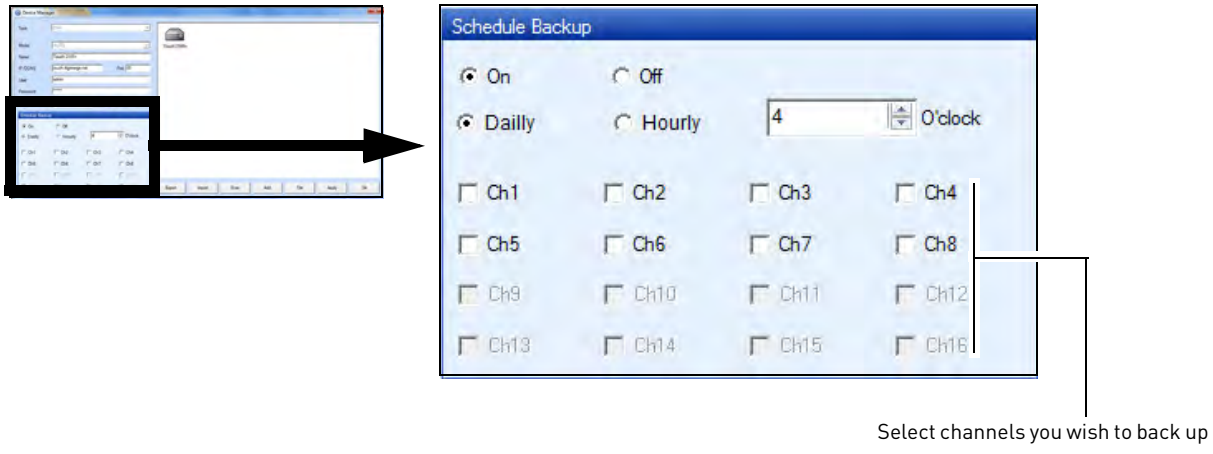
- 3GB of hard drive space (backup will not function if there is less than 3GB).
- DVRs must be in offline mode.

To configure Schedule Backup settings:

1. Click the DVR that you wish to configure.
2. Click the Device button (Device).

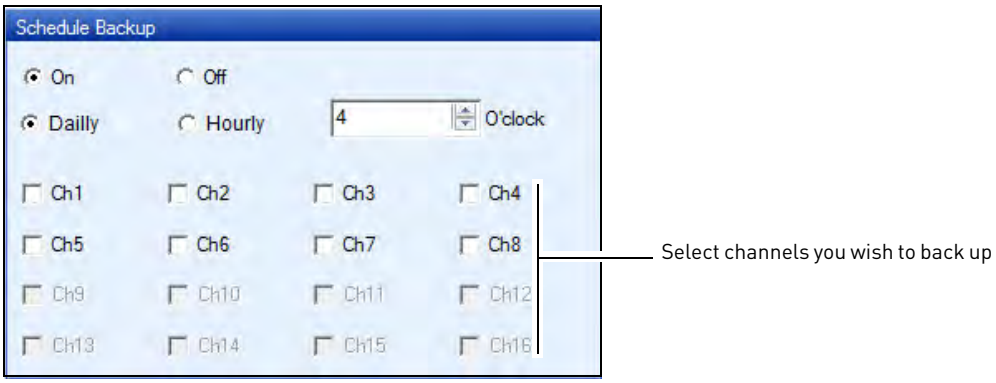


3. Select **On** to enable schedule backup.



4. Select **Daily** to back up 24 hours of video to your hard drive. Go to step 6.
   - Select **Hourly** to back up every hour of video to your hard drive. Go to step 5.

5. In the Minute drop-down menu, enter how many minutes the system should wait before recording. For example, if you enter 10 minutes, the system will backup video footage from 8:10 a.m to 9:10 a.m.
6. In the Hour drop-down menu, enter the time you wish to begin backup. For example, if you enter 5:00pm (05:00hr), the backup will start at 5:00pm, and end at 4:49am (the next day). Enter the hourly time in 24-hour format.
7. Select the channels that you wish to enable schedule backup.



8. Click **Apply** and then click **OK** to save your settings.

Taking Screen Captures

You can capture screen shots as JPeg or Bitmap images (JPG or BMP).

To take a screen capture:

1. During live view, click **Capture** (Capture).

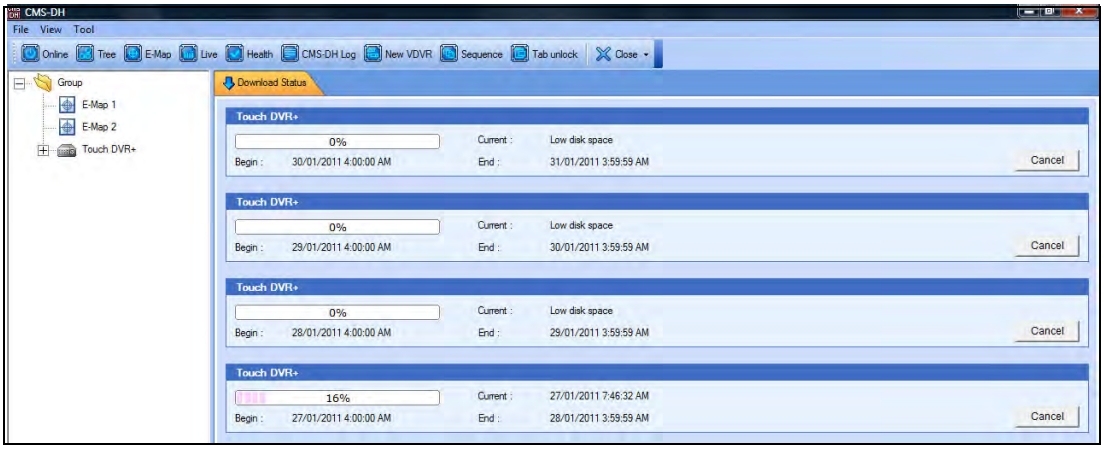
2. Click the **Save As** button. Enter the desired picture name, and select the desired save directory, and then click **Save**.

   NOTE: To take a screen capture of a full-screen, double-click the desired channel, then click the **Capture** button.

Viewing File Download Status

To check the download status of your video files:

1. Connect to the DVR you wish to check the video status on.
2. Click on **Tools→Download→Status**.

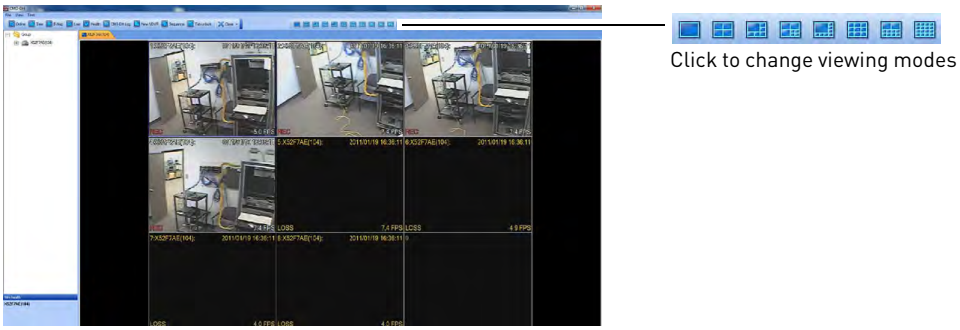


3. To cancel the download, click **Cancel**.

Changing viewing modes

To change the viewing modes of CMS-DH:

1. Log in to CMS-DH, and connect to a DVR.
2. Click ( )to change the viewing mode (single-channel, quad-channel, etc).



Sequencing

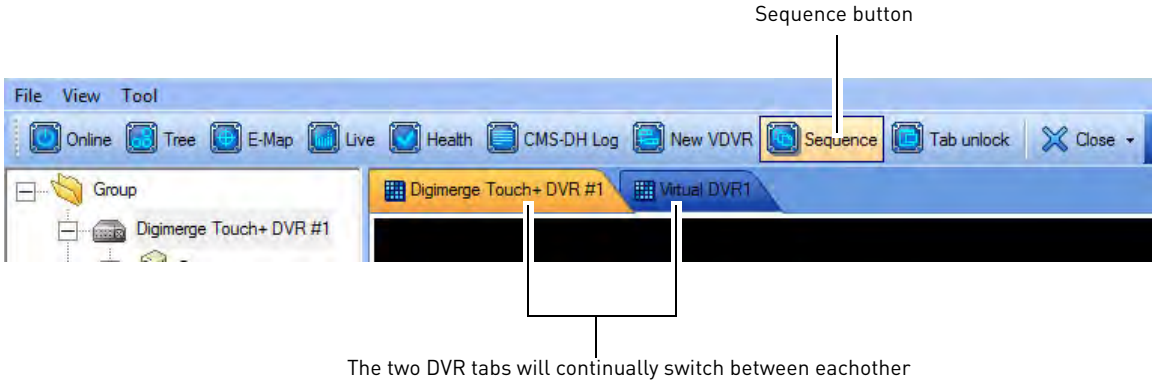
If you monitor multiple DVRs, you can have each tab change continuously. This process is called sequencing. You can perform sequencing as long as you have two or more DVRs. Virtual DVR's work with sequencing as well.

Prerequisite

- Log in to two or more DVRs.

To start a sequence:

- Click the **Sequence** button (Sequence).

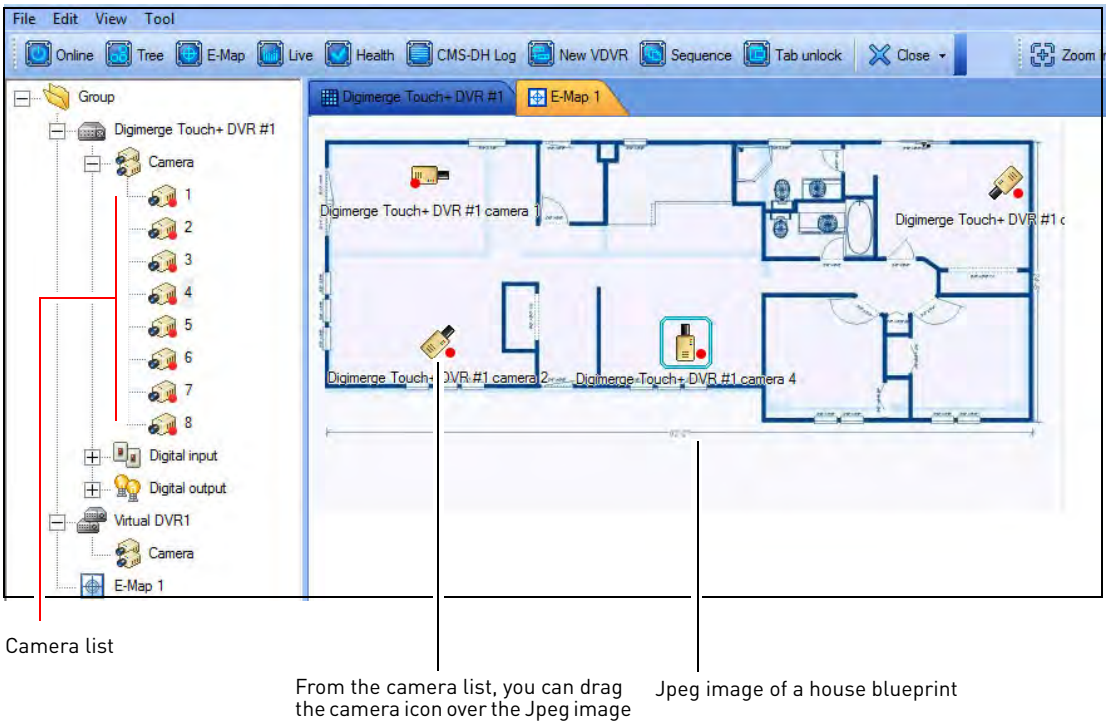

Sequence button
File View Tool
Online Tree E-Map Live Health CMS-DH Log New VDVR Sequence Tab unlock Close
Group
Digimerge Touch+ DVR #1
Digimerge Touch+ DVR #1
Virtual DVR1
The two DVR tabs will continually switch between eachother

NOTE: To change the sequence time, click **File→Setup**. Under "Miscellaneous", enter the desired sequence time in seconds, and click **Ok**.

E-Map

The E-Map feature allows you to visually map your cameras over a Jpeg image.

Example

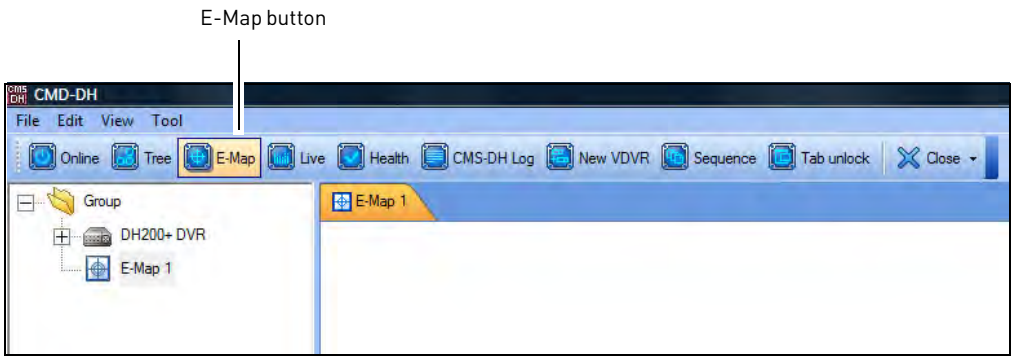


Prerequisite

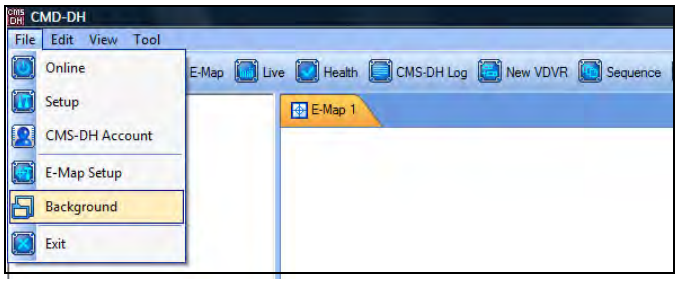
- Ensure the DVRs are online.

To set up an E-Map:

1. Click the **E-Map** button (E-Map).

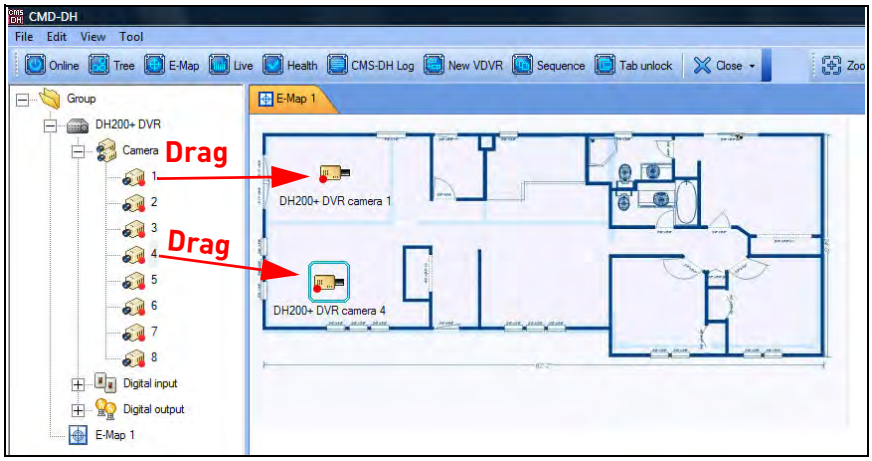


2. Click **File→Background**. Locate the file you wish to import, and then click **Open**.



3. Drag the desired cameras from the camera list, over the image.

   TIP: You can also drag the DVR icon and E-MAP icon over the image.



Tip:

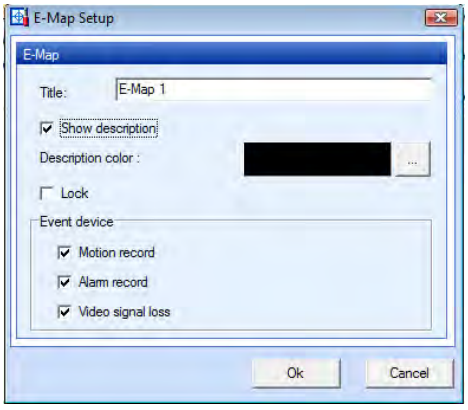
To rotate the camera, right-click on the camera, and click Rotate.

Click the desired turning position to rotate the camera icon.

E-Map Setup

To configure the E-Map setup menu:

1. Click **File→E-Map Setup**.
2. Configure the following:
   - **Title:** Change the camera title.
   - **Show Description:** Show/hide camera name.
   - **Lock:** Locks the camera position.
   - **Description color:** Change e-map font color.
3. Click **Ok** to save your settings.

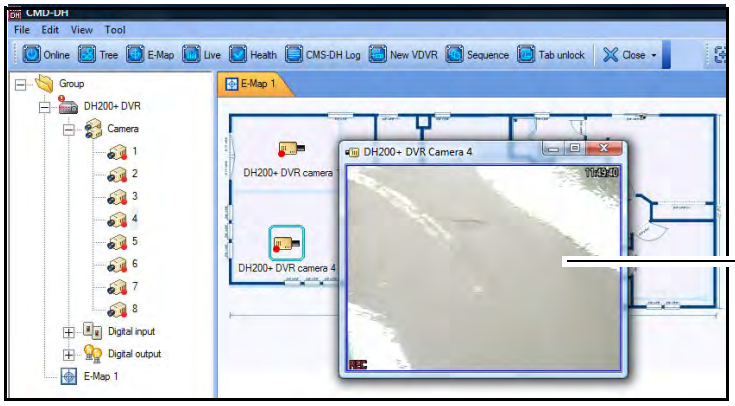


Viewing Video on E-Map

Once you have mapped your cameras on E-Map, you can view and search channels from the E-Map directly.

To view live video on E-Map:

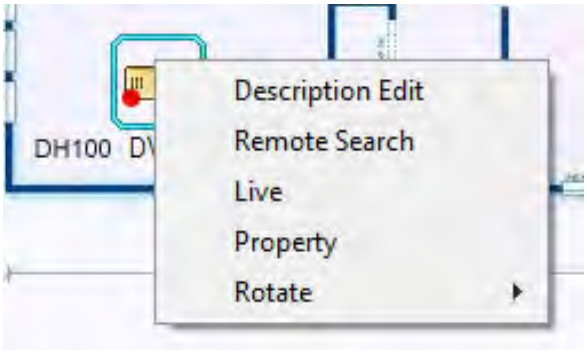
- Double-click on the desired camera icon to open live view.



Configuring E-Map Camera Settings

To configure E-Map camera settings:

1. Right-click on the camera you wish to configure.
2. Configure the following:
   - **Description Edit**: Edit the camera name on the E-Map.
   - **Remote Search**: Opens the video search menu.
   - **Live**: Opens a live view window of the camera.
   - **Property**: View DVR properties.
   - **Rotate**: Rotates the camera icon in the E-Map.



Right-click on the camera to open camera sub-menu options.

Zooming into the E-Map

- To zoom into the E-Map, click the **Zoom In** / **Zoom Out** buttons (Zoom In Zoom Out).

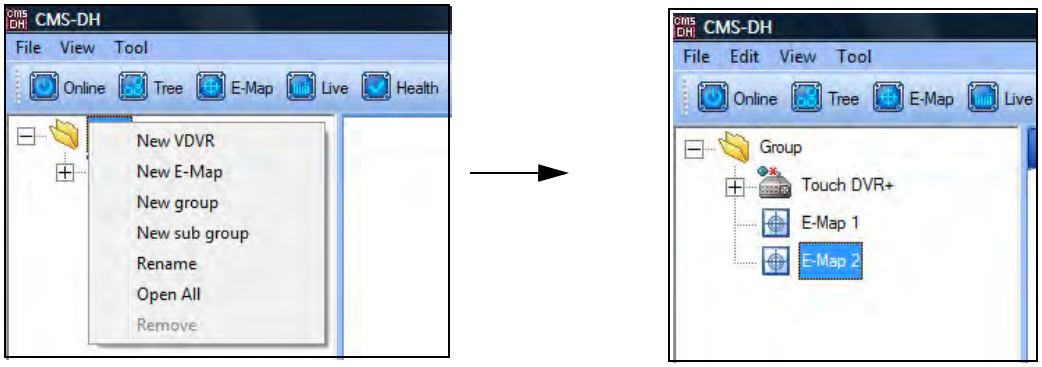
Removing Camera Icon in the E-Map

- Select the camera icon in the e-map, and click the **Remove Item** button (Remove Item).

Adding Multiple E-Maps

To add multiple E-Maps:

- Right-click the Group folder, and click New E-Map.



To remove the E-Map:

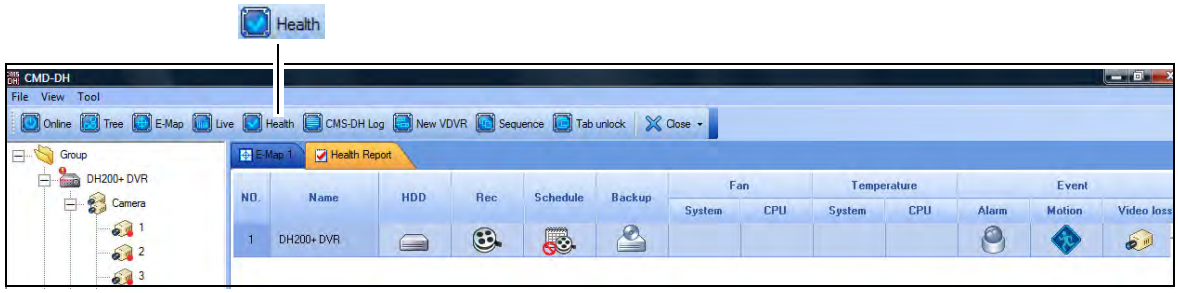
- Right-click on the E-Map, and then click **Remove**.

Tip: After you have created a second E-Map, you can drag the E-Map icon over a Jpeg image in the E-Map.

Viewing DVR Health

To view the status of the DVR:

1. Select the DVR on the menu tree on the left.
2. Click the **Health** button (Health).



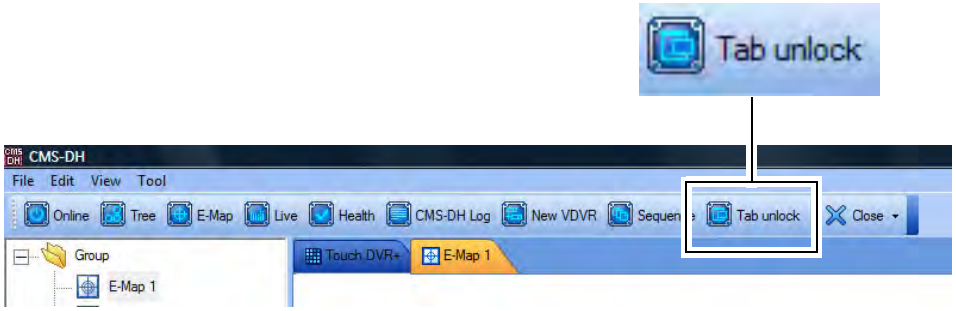
Closing Windows

To close open tabs:

- Click the Close button, and select Close or Close All.

Locking Windows

- To prevent the tab from being dragged, click the Tab Unlock button.

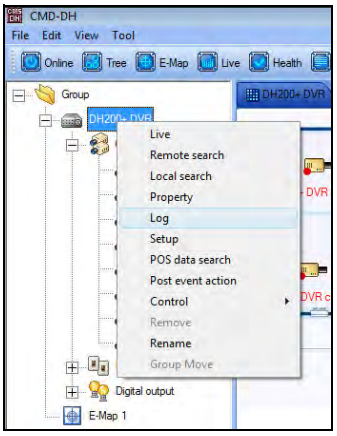


DVR Log

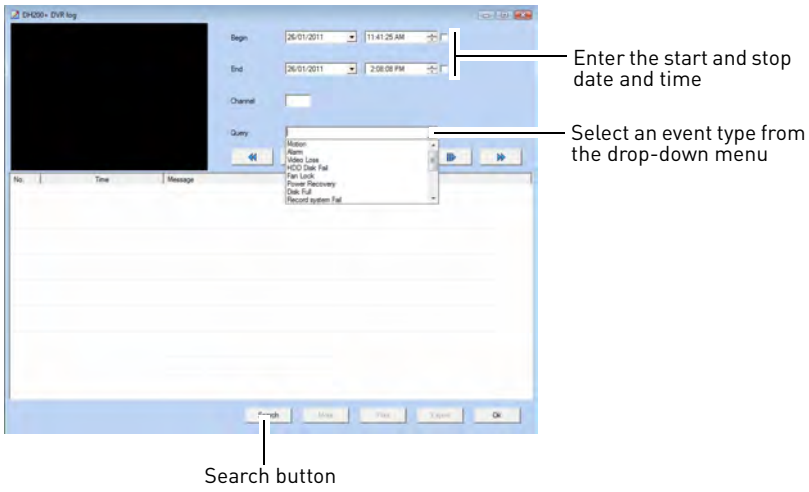
The DVR log allows you to check events that occurred in the DVR, such as hard drive malfunction, video loss, motion detection, and alarm settings.

To access the DVR log:

1. Connect to the DVR that you wish to view the log from.
2. Right-click on the DVR, and click **Log**.



3. Configure the following:
   - **Begin & End**: Specify the start and end date and time.
   - **Query**: Select the event type you wish to search for



4. Click **Search** to populate results.

   NOTE: Select the event and click the **Export** button to export the log as a text file. The log allows you to see any events logged by the DVR (i.e motion loss, etc.).

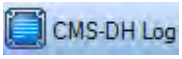
CMS-DH System Log

The CMS-DH log allows you to view video events that occurred in the system (i.e motion and camera loss events).

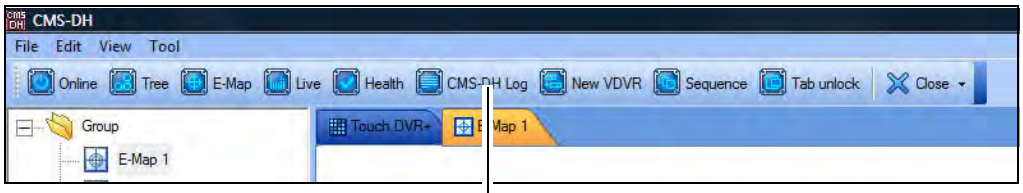
Prerequisite:

- Ensure the DVR(s) are online and connected to CMS-DH.

To view the system log:

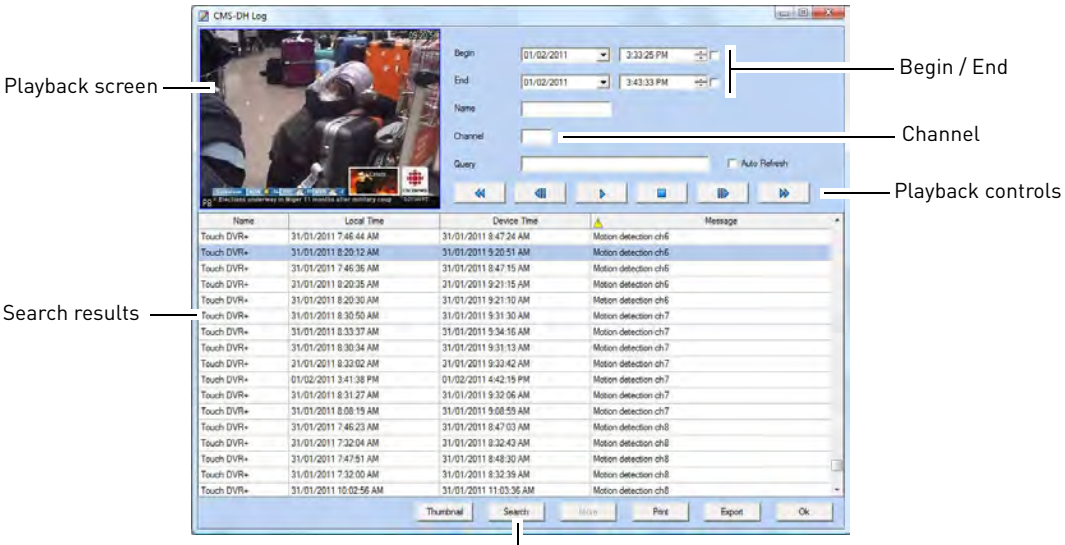
1. Click the CMS-DH Log button (

).



CMS-DH Log button

2. Configure the following settings:
   - **Begin:** Enter the Month, Date, Year, and time you wish to begin to search the log.
   - **End**: Enter the Month, Date, Year, and time you wish the log search to stop.
   - **Channel**: Enter the channel number you wish to search.

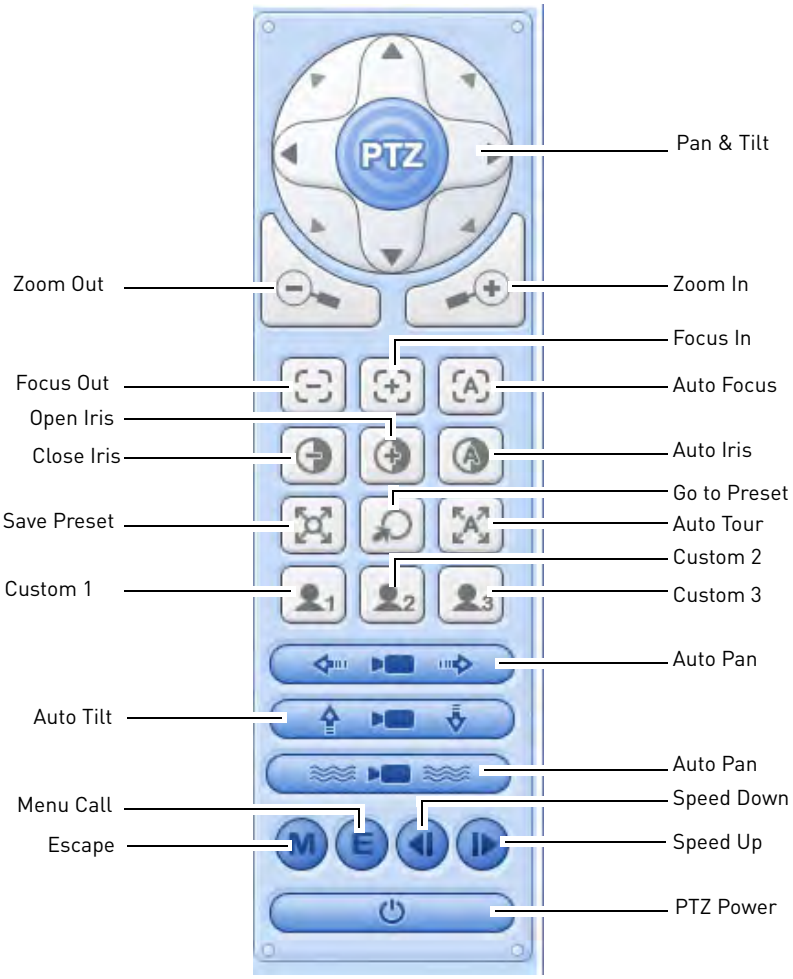


3. Click the **Search** button.
   - A list of results populate. Double-click the event in the search results to begin event playback. Use the playback controls to control playback speed.

PTZ

To activate the PTZ control, click the PTZ button ( ).

NOTE: You must select the channel that has a PTZ camera before using PTZ controls.



Setting PTZ Pre-Sets

1. Click the Pan & Tilt buttons to move the camera to the desired position.
2. Click the **Save Preset** button ( ). Enter the desired pre-set number (between 0 - 9999) and then click **Ok**.

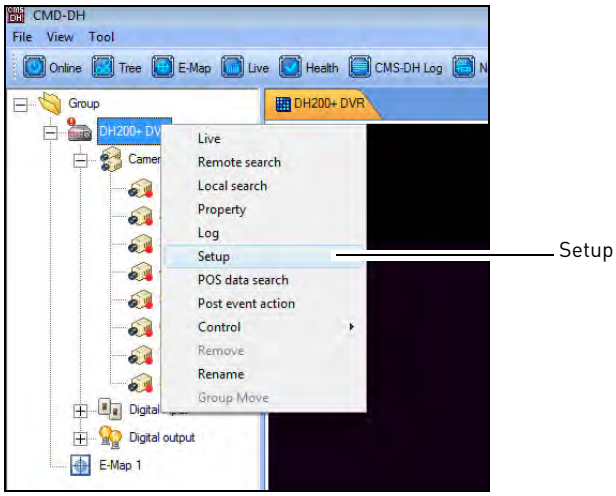
To access a pre-set

- Click the **Go to Preset** button ( ). Enter the pre-set number, and then click **Ok**.

System Setup

To access the full system setup menu:

1. Right-click on the DVR you wish to configure.



2. Click **Setup** from the sub-menu to access the full Setup menu.

NOTE: The menu structure is identical to the menu structure on the local DVR.

Configuring Post Event Action Tab

The Post Event Action tab allows your system to alert you when an alarm event triggers the DVR. For example, when the system detects motion from an input device, the computer speakers play a sound to alert you. Or, you can have the CMS-DH software alert you with a pop-up window when motion is detected.

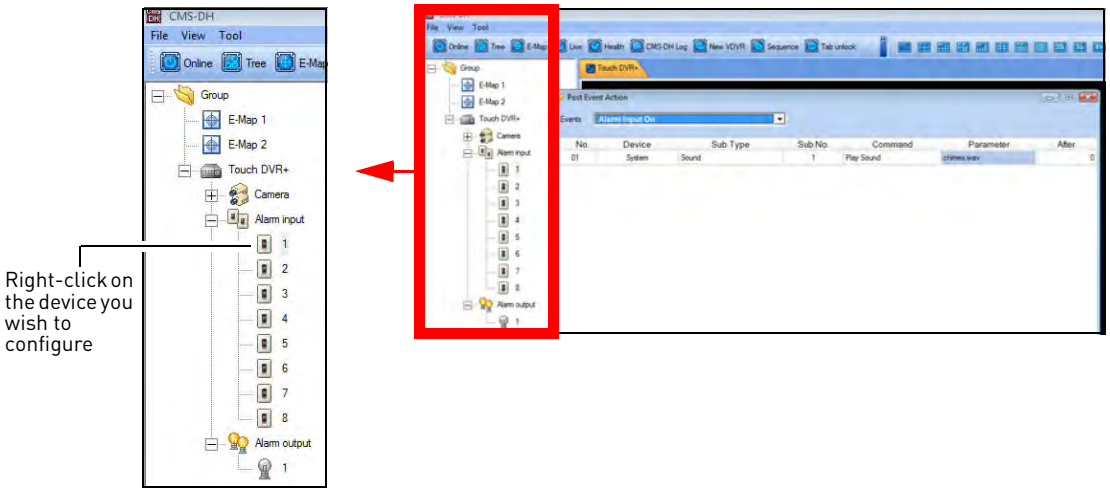
Setting up Post Event Actions on a NO/NC Device

Prerequisites (If setting up NO/NC Devices)

- Connect the input device into the alarm block in the rear panel of the DVR.
- Ensure you have the correct settings for the device (N/O, N/C), and that you have correctly configured the settings in the DVR menu.
- Ensure the DVRs are online.

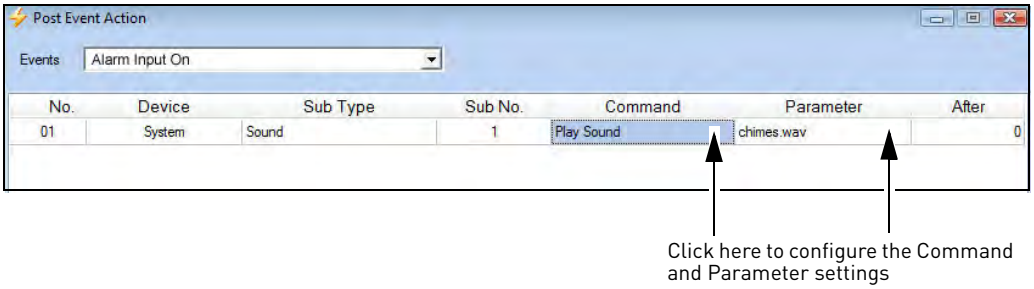
To configure the Post Event Action tab:

1. Expand the menu tree under the desired DVR that you wish to configure.
2. Under Alarm Input, right-click the number block that your device is connected into.
3. Click **Post Event Action**.

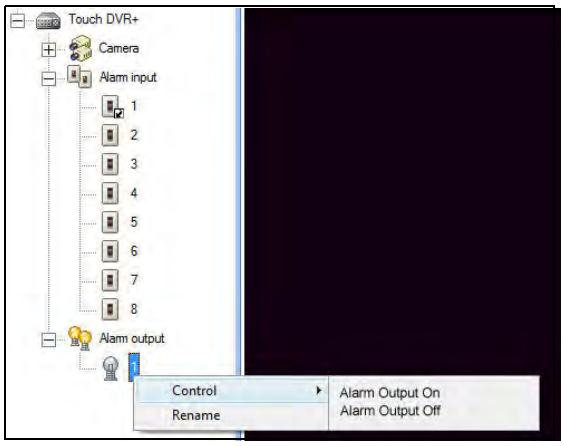


4. Configure the following:
   - Events: Select **Alarm Input ON** or **Alarm Input OFF**
   - Command: Select from **Play Sound** or **None**.

• Parameter: Select the desired alert sound you want the computer to play.



5. Click **Apply** and then **OK** to save your settings.
6. Under Alarm Output, right-click the light bulb icon, and click **Control**.
7. Click **Alarm Output On** or **Alarm Output Off**. This depends on your device type (N/O or N/C).
8. Click **Apply** and then **OK** to save your settings.



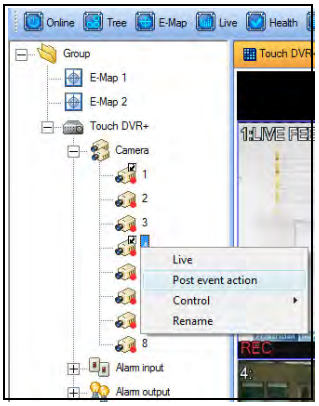
When an alarm is triggered, the system will play a sound on the computer.

Setting Message Pop-up Notifications

You can configure CMS-DH to produce message pop-up windows when an event occurs.

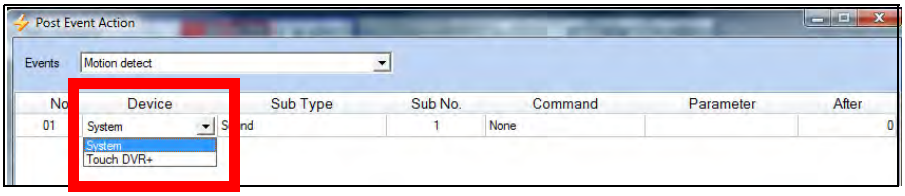
To configure CMS-DH to produce message pop-up events:

1. Expand the menu tree under the desired DVR that you wish to configure.
2. Right-click on the camera you wish to set alerts for, and click **Post Event Action**.

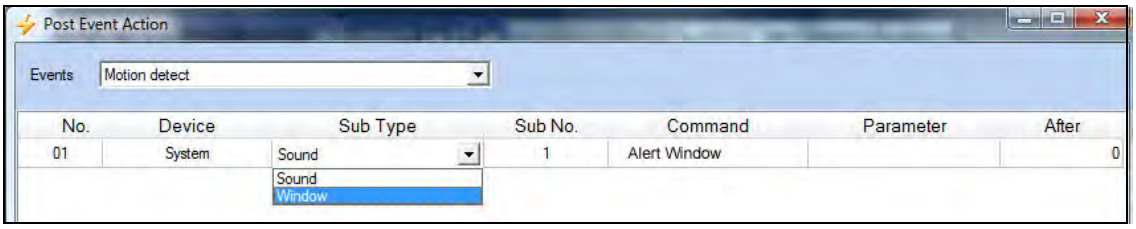


3. In the Events drop-down menu, select the type of event that will trigger CMS-DH to produce a pop-up window when an event is detected.

4. In the Device drop-down menu, select the **System**.



5. Under the Sub Type drop-down menu, select **Window**. Under the Command drop-down menu, select **Alert Window**.



6. Click **Apply** and then click **OK**.

Result

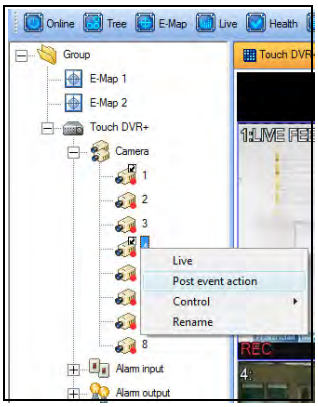
When the camera detects motion, a pop-up window appears on the bottom-right corner of the screen to alert you.

Setting Video Pop-up Notifications

You can configure CMS-DH to produce video pop-up windows when an event occurs.

To configure CMS-DH to produce video pop-up events:

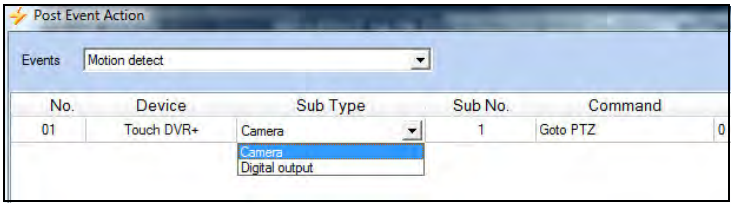
1. Expand the menu tree under the desired DVR that you wish to configure.
2. Right-click on the camera you wish to set alerts for, and click **Post Event Action**.



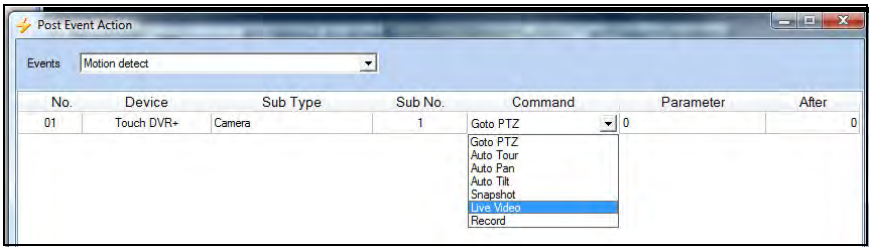
3. In the Events drop-down menu, select the type of event that will trigger CMS-DH to produce a pop-up window when an event is detected.

4. In the Device drop-down menu, select the name of your DVR.

5. Under the Sub Type drop-down menu, select **Camera**.



6. Under **Sub No.**, select the channel number you wish to appear as a pop-up alert.
7. Under **Command**, select Live Video.



8. Click **Apply** and then click **OK** to save your settings.

Result

When the camera detects motion, a pop-up window appears with live video.

Running CMS-DH on Multiple Monitors

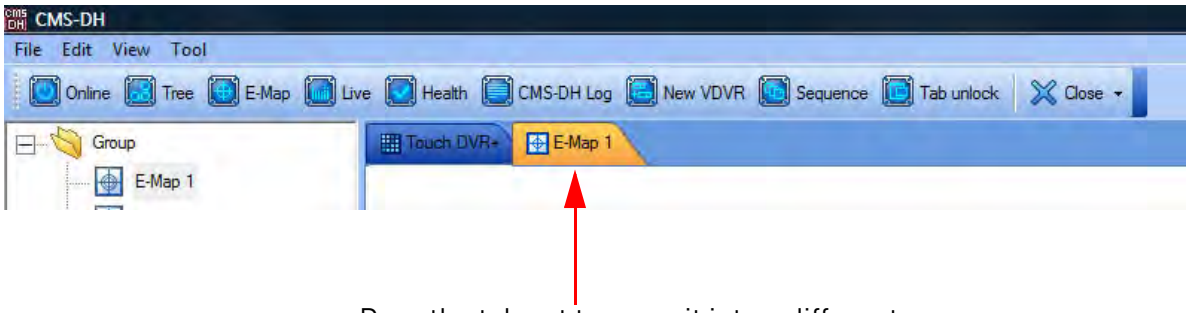
CMS-DH can support a maximum of 8 monitors on a single system. Running 8 monitors is extremely resource intensive. The recommended system specifications is listed below. If your system does not meet the requirements below, you may experience slow system performance.

Minimum system recommendations to run CMS-DH on multiple monitors

- Intel Core i5 or i7 processor.
- 6 GB of RAM.
- A motherboard that can support up to four (4) PCI-E video cards.
- Geforce 9500 GT video card,1GB or greater.

To run CMS-DH on multiple monitors:

1. Connect to CMS-DH. Open the desired DVR's / E-Maps etc. that you wish to view.
2. Drag the desired tabs to a different monitor.


CMS-DH
File Edit View Tool
Online Tree E-Map Live Health CMS-DH Log New VDVR Sequence Tab unlock Close
Group
E-Map 1
Touch DVR+
E-Map 1
Drag the tab out to move it into a different screen.

3. Repeat as required.

Final Result

REMOTE VIEWING ON THE MAC

You can remotely connect and configure your DVR using the Safari browser in Mac OSX 10.6 or above.

Prerequisites

- Port **80** (or whichever port your system is using) must be port forwarded to your router.
- You must create a DDNS account, and have the DDNS settings configured in your DVR.
- The DVR must have internet access.
- You must have a Digimerge DDNS address to log in remotely.

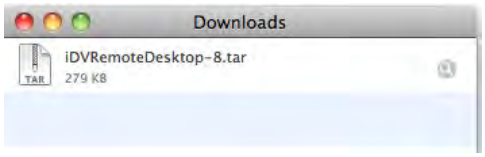
Step 1 of 2: Installing iDVR:

1. In the address bar, enter your system's IP address or your Digimerge DDNS domain followed by :80 — for example, **http://192.168.1.1:80** or **http://tomsmith.digimerge.net:80**

   NOTE: You MUST include **http://** in order to access your system.

2. Click **Download DVR Remote Desktop (Mac OSX 10.6 or above)**. Wait for the file to download.

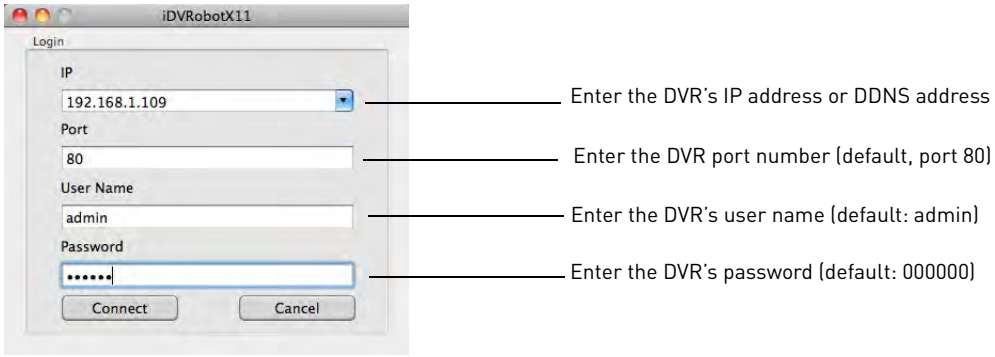
   - The file saves into your Download folder.



3. Double-click the file to extract the contents. The file extracts into the iDVR icon ( ).

Step 2 of 2: Configure and launch iDVR

1. Double-click the iDVR icon to start the program.
2. Enter the following:
   - **IP**: Enter the local IP address of the DVR or DDNS address in full (i.e. tomsmith.digimergeddns.net).
   - **Port**: Enter the system's port number.
   - **User Name**: Enter the DVR's user name (by default, admin).
   - **Password**: Enter the DVR's password (by default, 000000).



3. Click **Connect**. The system connects to your DVR.

Click the LQ / HQ button to switch between LQ (low quality) and HQ (high quality) video streaming

NOTE: The interface and functionality is identical to the local menu.

REMOTE VIEWING ON THE PC

Along with the CMS-DH remote client software, you can also view your system remotely using Internet Explorer (version 7 or later recommended). Remote viewing through Internet Explorer allows for viewing from up to three simultaneous connections.

NOTE: Remote viewing is only compatible with Internet Explorer.
Mozilla Firefox, Opera, Safari, and other browsers are not supported.

Prerequisites

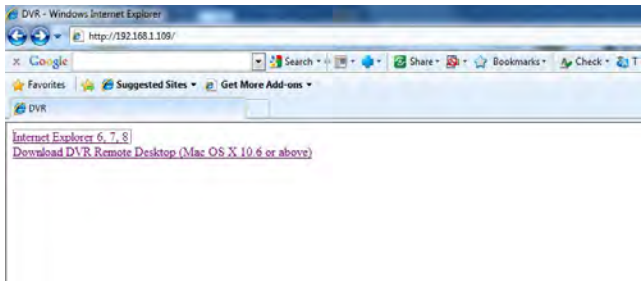
- Port **80** (or whichever port your system is using) must be port forwarded to your router.
- You must create a DDNS account, and have the DDNS settings configured in your DVR.
- The DVR must have internet access.
- You must have a Digimerge DDNS address to log in remotely.

To view your system using Internet Explorer:

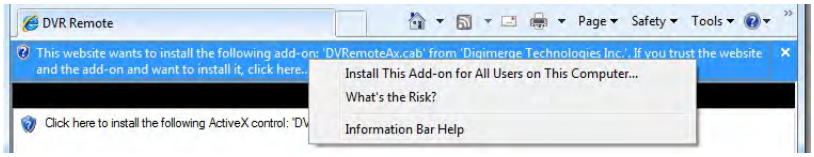
1. Open Internet Explorer.
2. In the address bar, enter your system's IP address or your Digimerge DDNS domain followed by :80 — for example, **http://192.168.1.1:80** or **http://tomsmith.digimerge.net:80**
   NOTE: You MUST include **http://** in order to access your system.
3. Enter the system user name and password (by default admin / 000000). Click **OK** to log in.

Windows Security
The server 192.168.1.109 at . requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name
Password
Remember my credentials
OK
Cancel

4. Click **Internet Explorer 6,7,8**.



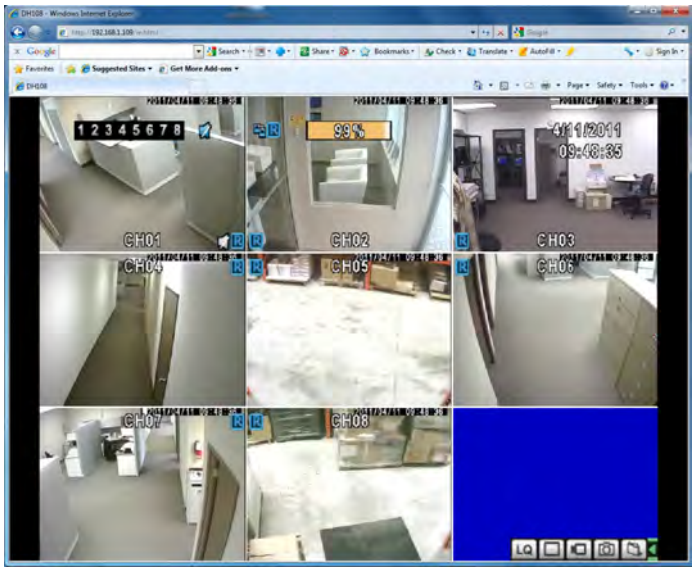
5. Click the warning bar and select **Install This Add-on for All Users on This Computer**.


DVR Remote
Page
Safety
Tools
This website wants to install the following add-on: 'DVRemoteAx.cab' from 'Digimerge Technologies Inc.'. If you trust the website and the add-on and want to install it, click here...
Install This Add-on for All Users on This Computer...
What's the Risk?
Information Bar Help
Click here to install the following ActiveX control: 'DV

6. Click **Install** to continue.

Internet Explorer - Security Warning
Do you want to install this software?
Name: DVRemoteAx.cab
Publisher: Digimerge Technologies Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

7. Live viewing starts after the software installs.



NOTE: The interface and functionality is identical to the local menu.

MOBILE CONNECTIVITY

The DH100 Series is compatible with the iPhone/iPad, Blackberry, and Android Devices.

iPhone /iPad

Digi iMobile DH100 is an iPhone/ iPad app that allows you to remotely view your DH100 series DVR.

Compatible Devices

- iPhone 3GS, iPhone 4, iPod Touch (3rd and 4th generation), iPad.
- iOS 4.1 or later.
- DH100 series DVR.

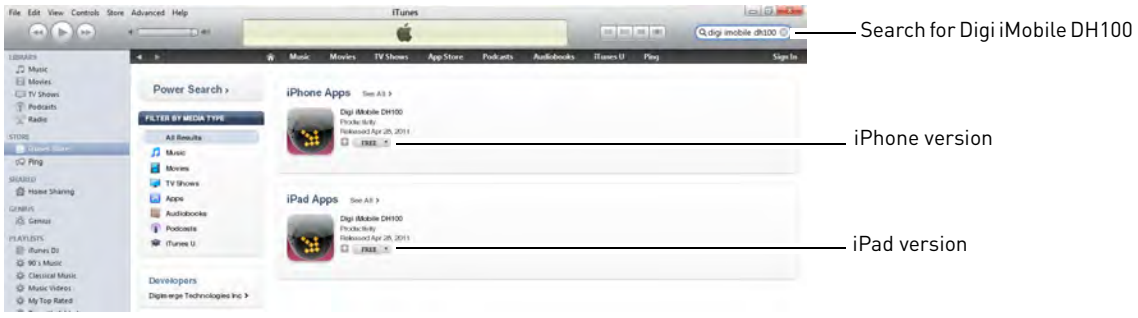
Prerequisites

- Port **80** (or whichever port your system is using) must be port forwarded to your router.
- You must create a DDNS account, and have the DDNS settings configured in your DVR.
- The DVR must have internet access.
- You must have a Digimerge DDNS address to log in remotely.
- An iTunes account.

NOTE: You will need to create an iTunes account before you can download the app. An iTunes store account requires a valid credit card number. The Digi iMobile DH100 app is free of charge.

To download the app:

1. Search for **Digi iMobile DH100** in the iTunes App store. Download either the iPhone or iPad version of the app. Follow the onscreen instructions to install the app.



Starting Digi iMobile Touch

- Tap on the Digi iMobile DH100 icon ( ) to start the app.

Configuring Digi iMobile DH100

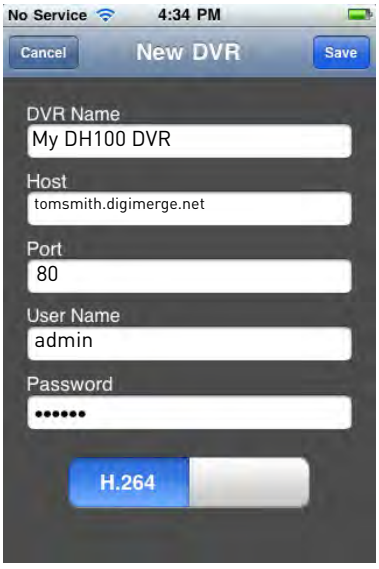
Once you have installed the application, enter your DVR's information to connect remotely.

Step 1 of 2: Enter your DVR information

To enter your DVR information into Digi iMobile DH100:

1. Tap the ( ) button.

2. Enter the following:
   - **DVR Name**: Enter the desired DVR name.
   - **Host**: Enter your DDNS address (i.e. tomsmith.digimerge.net)
   - **Port**: Enter your DVR's port number (by default, port 80).
   - **User Name**: Enter your DVR's user name (by default, admin).
   - **Password**: Enter your DVR's password (by default, 000000).



3. Tap **Save**.

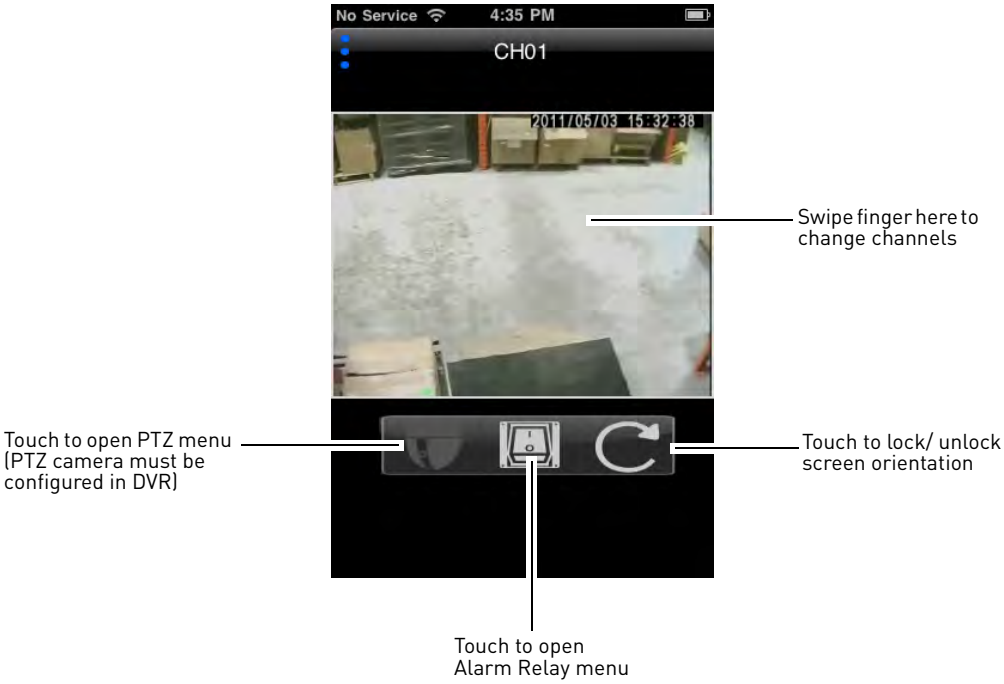
Step 2 of 2: Connect to your DVR

To connect to your DVR:

1. Tap the name of the DVR you wish to connect to.

NOTE: To erase an account, swipe your finger across the name of the DVR you wish to delete. Next, tap the Delete button.

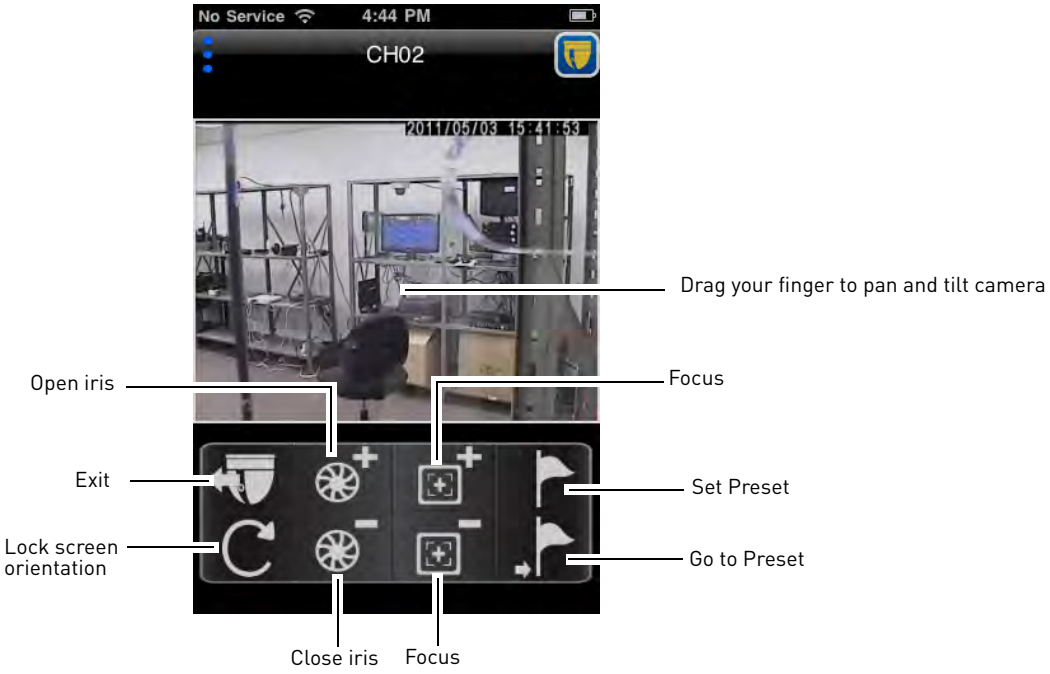
Digi iMobile DH100 Features and Functions


No Service
4:35 PM
CH01
Swipe finger here to change channels
Touch to open PTZ menu (PTZ camera must be configured in DVR)
Touch to lock/ unlock screen orientation
Touch to open Alarm Relay menu

Controlling PTZ Cameras

To control connected PTZ cameras:

1. Select the channel that has the PTZ camera connected.
2. Tap the PTZ button ( ).



3. Perform one of the following:
   - **Pan and tilt**: Drag your finger on the main viewing window to pan and tilt the camera.
   - **Zoom**: Pinch your finger on the screen to zoom in or out.

Changing Views During Normal Viewing

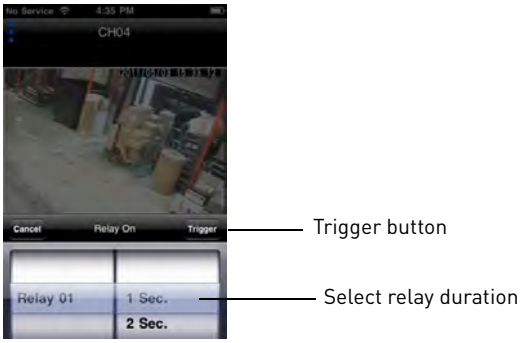
During live view:

- **Change channels**: Swipe your finger across the screen.
- **Quad view**: Pinch your finger on the screen.

Configuring the Relay Menu

To open the alarm relay menu:

1. Tap the relay button ( ).



2. Select the relay duration, and tap **Trigger** to activate the relay.

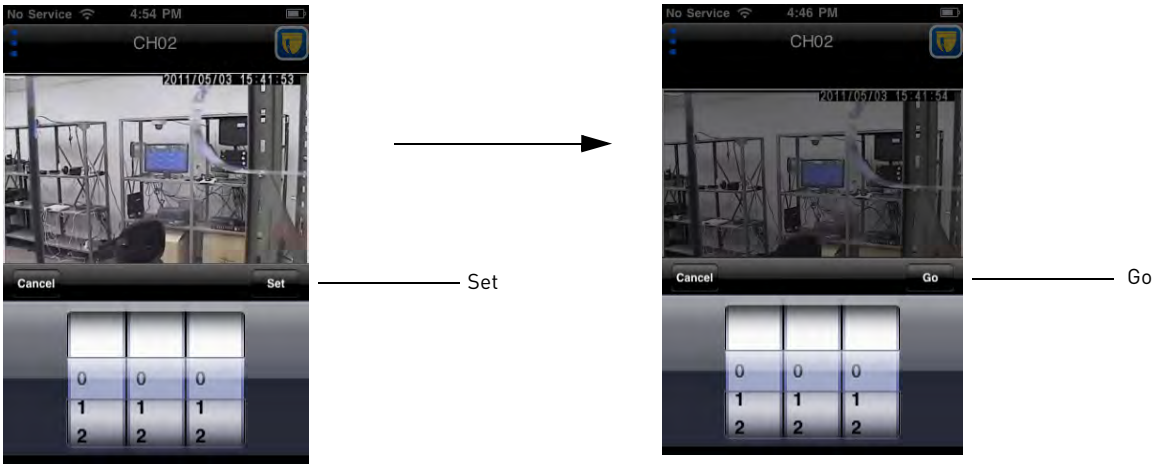
Configuring Presets

The PTZ preset menu allows you to store and go to PTZ presets.

To set a preset:

1. Move the PTZ camera to the desired viewing area.

1. Tap the preset button ( ).
2. Enter a preset number and tap **Set**.



To go to a preset:

1. Tap the Go to preset button ( ).
2. Enter the preset number that you wish to go to, and then tap **Go**.

Android-based Devices

Digi iMobile Touch DH100 is an Android app that allows you to remotely view your DVR.

NOTE: Digi iMobile Touch DH100 is capable of **viewing only**.

NOTE: These instructions are based on the HTC Wildfire smartphone. For specific installation instructions, consult your smartphone's user's manual.

Compatible Devices

- Android OS (2.1 and above, touch screen models only).
- Digimerge DH100 Series DVR.

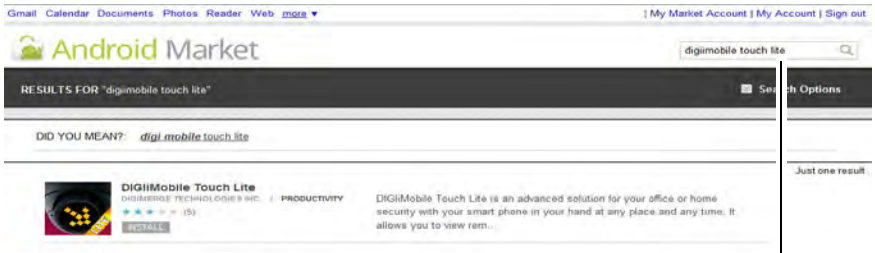
Prerequisites

- Port **80** (or whichever port your system is using) must be port forwarded to your router.
- You must create a DDNS account, and have the DDNS settings configured in your DVR.
- The DVR must have internet access.
- You must have a *Digimerge DDNS* address to log in remotely.
- An Android Market account.

NOTE: You will need to create an Android Market account to download the app.

Installation Steps

1. Search for **DigiiMobile DH100** in the *Android Market*. Follow the on-screen instructions to install the app.


Gmail Calendar Documents Photos Reader Web more
My Market Account | My Account | Sign out
Android Market
digiimobile touch lite
RESULTS FOR "digiimobile touch lite"
DID YOU MEAN? digi mobile touch lite
Just one result
DIGIIMobile Touch Lite
PRODUCTIVITY
INSTALL

Search for **digiimobile touch DH100**

Starting Digi iMobile Touch Lite

- Tap on the Digi iMobile DH100 icon ( ) to start the app.

Configuring Digi iMobile DH100

Step 1 of 2: Enter your DVR Information

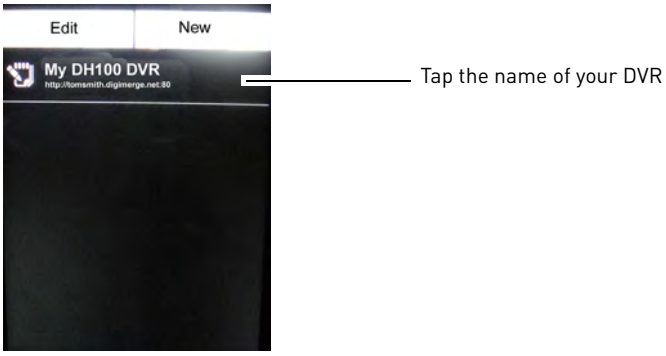
To configure Digi iMobile DH100:

1. Tap **New**.
2. Enter the following:
   - **DVR**: Enter the desired DVR name.
   - **Address**: Enter your DDNS address (i.e. tomsmith.digimerge.net).
   - **Port**: Enter your DVR's port number (by default, port 80).
   - **User**: Enter your DVR's user name (by default, admin).
   - **Password**:Enter your DVR's password (by default, 000000).
   - **jpeg or h264**: Select **H264** (recommended) or **jpeg**.

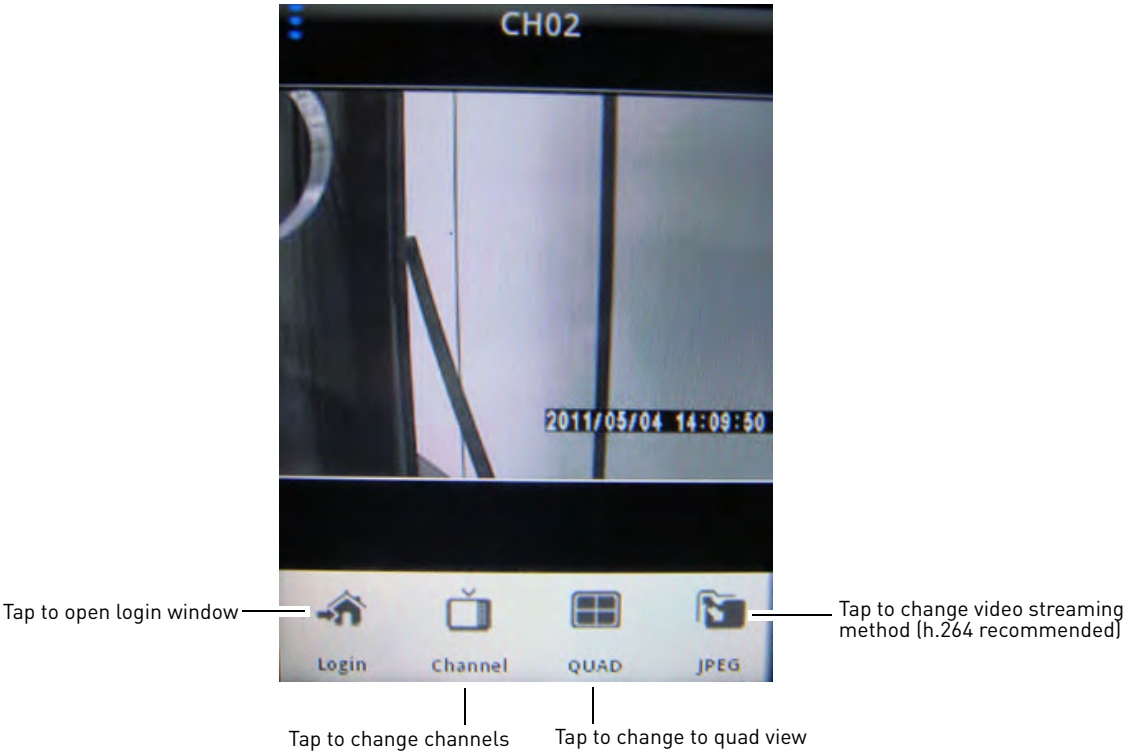
3. Tap **Save**.

Step 2 of 2: Connect to your DVR

1. Tap the name of your DVR to connect.



Digi iMobile DH100 Features and Functions



Blackberry

"Connection h.264" is Blackberry app that allows you to remotely view your DVR.

NOTE: Connection h.264 is capable of **viewing only**.

Compatible Devices

- Blackberry 9000, 9700, 9800.
- Blackberry Desktop Manager 4.6 and above.
- Digimerge DH100 Series DVR.

Prerequisites

- Port **80** (or whichever port your system is using) must be port forwarded to your router.
- You must create a DDNS account, and have the DDNS settings configured in your DVR.
- The DVR must have internet access.
- You must have a *Digimerge DDNS* address to log in remotely.
- Download and install Blackberry Desktop Manger 4.6 or greater. (URL: http://us.blackberry.com/apps-software/desktop/)

Before you start

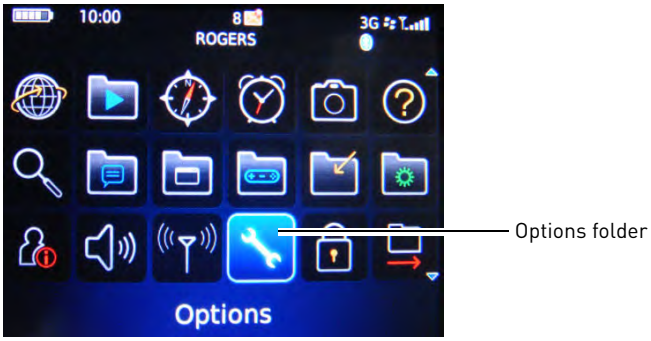
- Obtain your Blackberry's **APN** (Access Point Name) from your service provider, and enable APN on your Blackberry.

Enabling APN (Access Point Name)

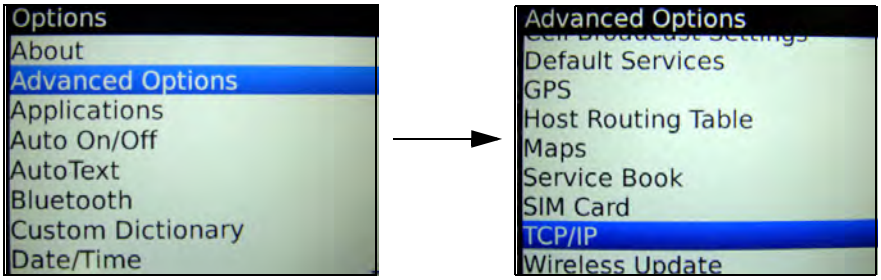
In order for the app to run, you must enable APN (Access Point Name) on your Blackberry. Contact your service provider for your Blackberry's APN name.

To enable APN:

1. Press the Menu button ( ).
2. Open the **Options** menu.

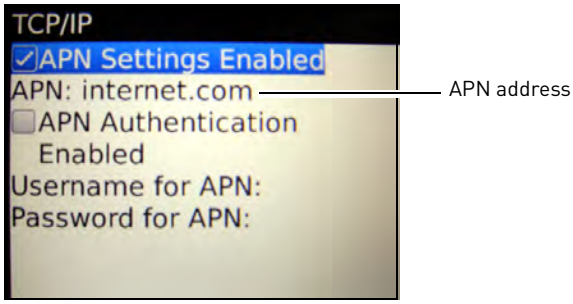


3. Select **Advanced Options** → **TCP/IP**



4. Select the checkbox beside **APN Settings** to enable APN.

Example



5. Beside APN, enter your APN. **You must obtain the APN from your local service provider.**
6. Exit to save your settings.

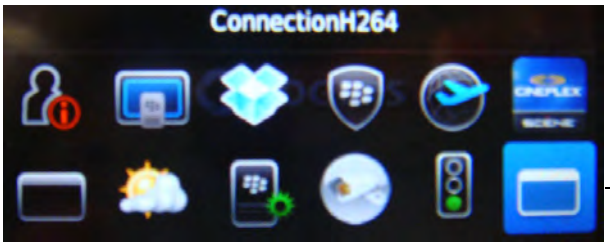
Step 1 of 3: Install the .alx file to your Blackberry

To install Connection h.264 to your Blackberry:

1. Go to www.digimerge.com, and go to the DH100's product page. Download the Blackberry remote app.
2. Extract the zip files to a folder. The zip file contains two files, one ending in **.alx** and one in **.cod**.
3. Connect your Blackberry to a the computer using a USB cable.
4. Launch Blackberry Desktop Manager.
5. Click on **Application Loader**.
6. Under Add/Remove Applications, click **Start**.
7. Locate and open the **.alx** file you extracted.
8. Click **Next** to install the software.

Step 2 of 3: Configure "Connection h.264"

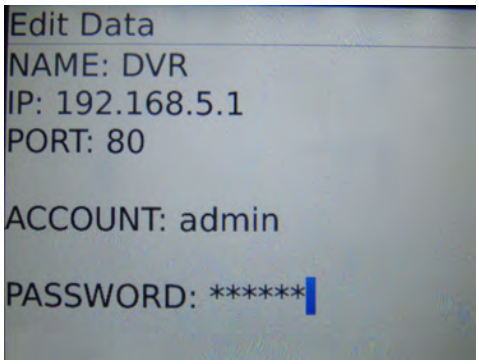
1. Launch the Connection h.264 app (usually in the Downloads folder).



Connection H.264 app

2. Press the Menu button ( ) and click **Add**.

3. Enter the following:
   - **NAME**: Enter the desired DVR name.
   - **IP:** Enter the DVR's local IP address or DDNS address (i.e. tomsmith.digimergeddns.net).
   - **PORT**: Enter the DVR's port number (by default, port 80).
   - **ACCOUNT**: Enter your DVR's user name (by default, admin).
   - **PASSWORD**: Enter your DVR's password (by default, 000000).

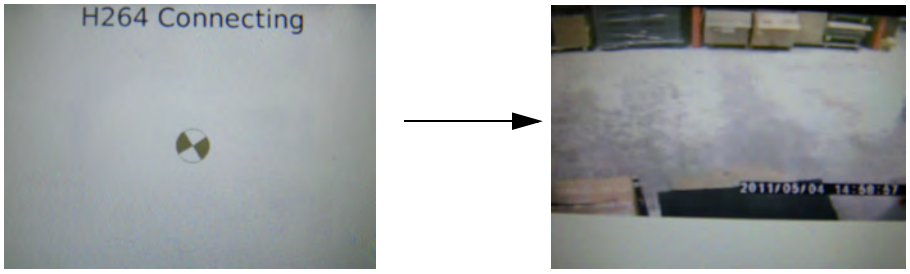


4. Press the Menu button ( ) and select **OK**.

Step 3 of 3: Log in to your DVR

To log in to your DVR:

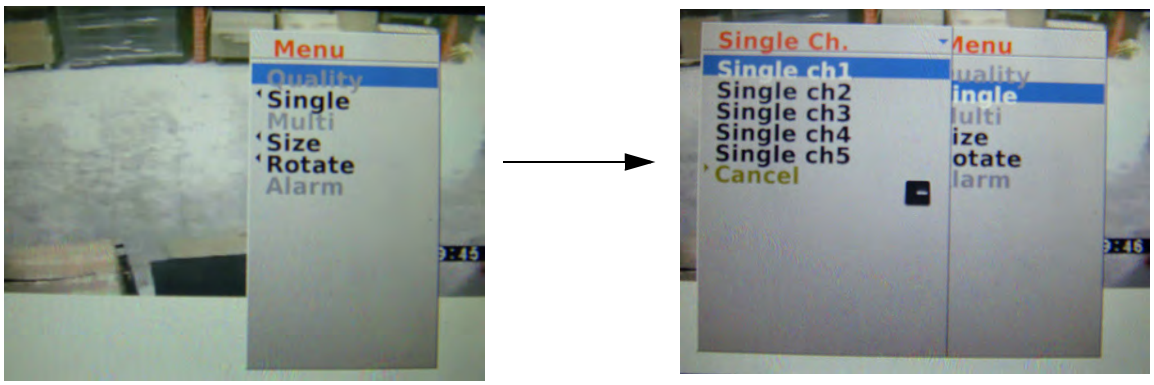
1. Select the name of your DVR, press the Menu button ( ) and select **Login**.



Functions and Features

Changing Channels

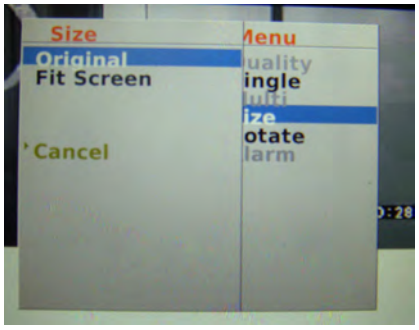
1. During live view, press the Menu button ( ) to open the sub-menu.



2. Select **Single**, then select the desired channel.

Viewing in Full Screen

1. During live view, press the Menu button ( ) to open the sub-menu.
2. Select **Size**→**Fit Screen**.



Changing Viewing Orientation

To change the screen orientation from portrait to landscape:

1. During live view, press the Menu button ( ) to open the sub-menu.
2. Select **Rotate**.

APPENDIX A: SYSTEM SPECIFICATIONS

Description	Specification
Video IN / Loop Out	4ch: 4 input, 8ch: 8 input, 16ch: 16 input
Video Display	4ch: 1,4 Split, 8ch: 1,4,8 Split, 16ch: 1,4,9,13,16 Split
Monitor Out	1 ch
Spot Out	YES
Audio In/Out	1 In/1 Out
Video Compression	H.264 hardware codec
PIP Display	YES
Live Display Resolution	NTSC: 704 X 480, PAL: 704 X 576
Main (Recording)	NTSC: 704X480, 704X240, 352X240 PAL: 704X576, 704X288, 352x288
Sub (Network)	NTSC: 350X240 PAL: 352X288
Recording Speed NTSC	**4ch:** 120fps @ 704X480 / 120fps @ 704X240 / 120fps @ 360X240 **8ch:** 120fps @ 704X480 / 240fps @ 704X240 / 240fps @ 360X240 **16ch:** 120fps @ 704X480 / 240fps @ 704X240 / 480fps @ 360X240
Recording Speed PAL	**4ch:** 100fps @ 704X576 / 100fps @ 704X288 / 100fps @ 352X288 **8ch:** 100fps @ 704X576 / 200fps @ 704X288 / 200fps @ 352X288 **16ch:** 100fps @ 704X576 / 200fps @ 704X288 / 400fps @352X288
Pre-Alarm	10 SEC
OS	Embedded Linux
MAC OS	YES. Supports PC & Mac OS
Mobile Support	iPhone, Android, Blackberry, Symbian, Win Mobile
Network	10/100 Base T
USB	2x USB 2.0 (Front & Rear)
SATA HDD	Max 2TB
PTZ	RS485
Alarm Function	4ch: 4 In / 1 Out (NO/NC), 8ch: 8 In / 1 Out (NO/NC), 16ch: 8 In / 1 Out
Remote Control	IR Input
Front LED	Power, REC, NET
Power Adapter	Adapter 12V, 3A
Power Source	36W

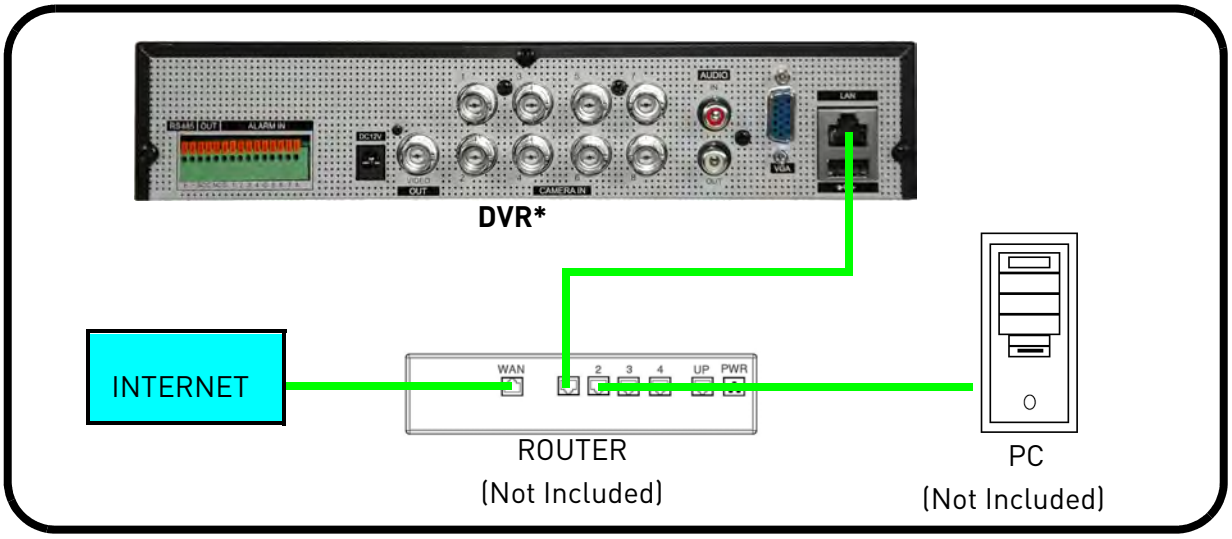
As our products are subject to continuous improvement, Digimerge Technology Inc. and its subsidiaries reserve the right to modify product design, specifications, and prices without notice and without incurring any obligation. E&OE

APPENDIX B: SETTING UP REMOTE VIEWING

Setting up the Remote Viewing Feature requires several steps. Networking skills are required to correctly configure the remote viewing functions.

What Do I Need?

- DVR System.
- A PC with the installed CMS-DH software.
- Internet Explorer (PC) or Safari (Mac).
- A router (not provided with the system) and High Speed Cable or DSL Internet Connectivity (for remote viewing outside your network).



*8-channel model shown.

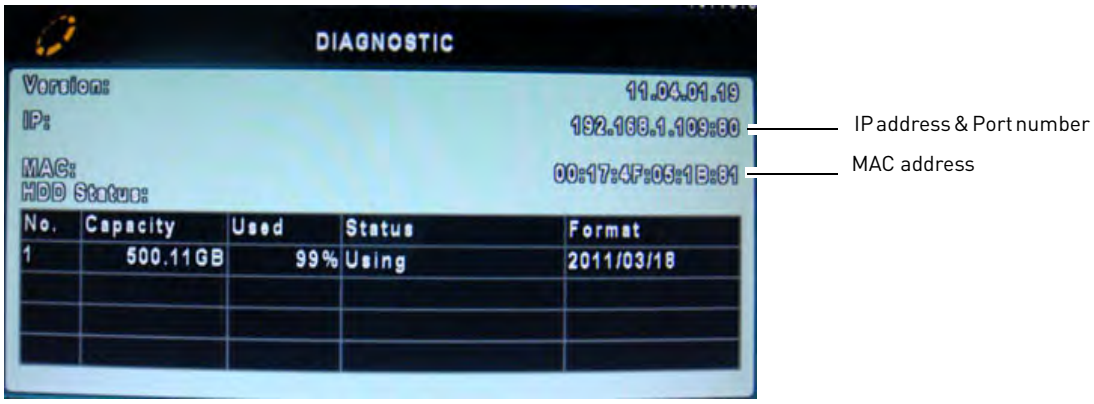
Network Setup / Remote Access Overview

To setup remote viewing:

1. With the system powered off, connect the system to the router using an Ethernet cable.
2. Power the system on. You must connect the system to the router prior to turning on the system. This allows the system and router to communicate over the network.
3. Press and hold the Enter button on the front panel to find your system's IP address.
4. Enable Port Forwarding on your router. Refer to the included Router Guide and Basics of Remote Video Access Guide for further assistance with your specific network setup and hardware.
5. Setup an account at http://ddns.digimerge.net

How Do I Find My IP and MAC addresses?

The IP and MAC address of your system are necessary for DDNS setup. DDNS allows you to view and control your system from a remote location.



To find your IP and MAC address using the remote control:

- Press the **INFO / 10+** button (4/8-channel models).
- Press the **INFO / 10+** button 2 times (16-channel model).

To find your IP and MAC address using the mouse:

1. Right-click in the main viewing window and click **Main Menu→Utilities→Information**

Finding Your External IP Address

If you wish to find your external IP address, you can use a third-party website such as www.showmyip.com

Your external IP address can also be found within your Router settings. Refer to your router's user guide for further details.

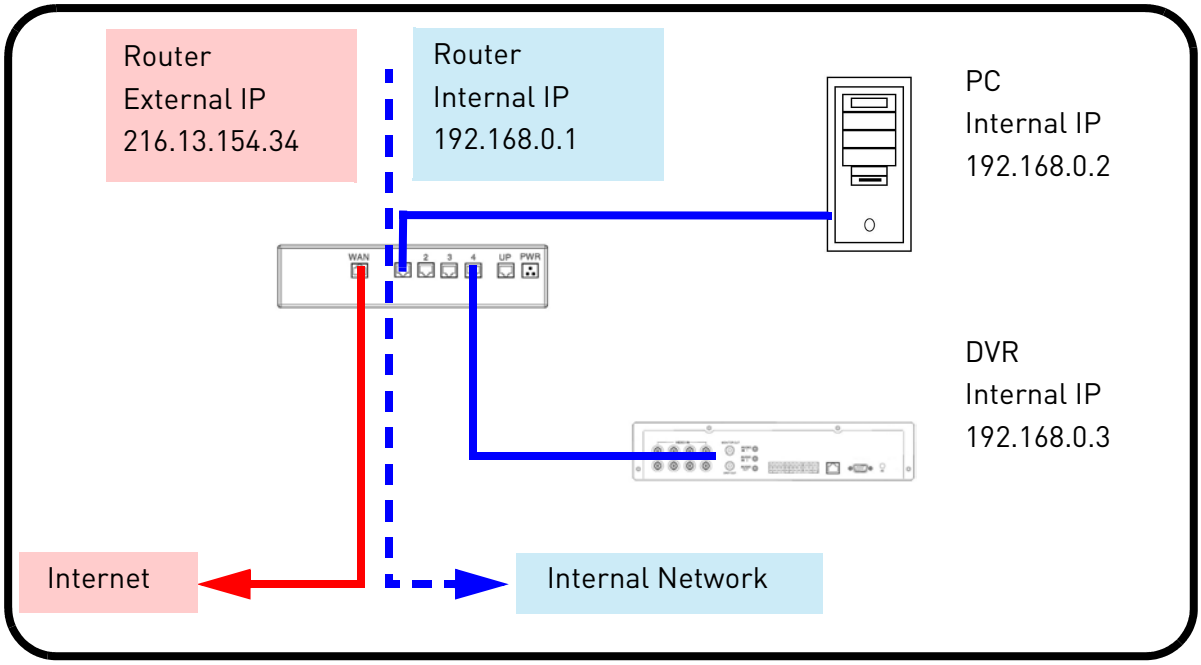
How Do I Enable Port Forwarding?

You need to enable port forwarding on your router to allow for external communications with your system for the following port:

- **80**

Computers, DVRs, and other devices inside your network can only communicate directly with each other within the internal network. Computers and systems outside your network cannot directly communicate with these devices. When a system on the internal network needs to send or receive information from a system outside the network (i.e. from the Internet), the information is sent to the router.

NETWORK EXAMPLE



When a computer on the Internet needs to send data to your internal network, it sends this data to the external IP address of the Router. The Router then needs to decide where this data is to be sent to. This is where setting up Port Forwarding becomes important.

Port Forwarding tells the router which device on the internal network to send the data to. When you set up port forwarding on your Router, it takes the data from the external IP address:port number and sends that data to an internal IP address:port number (i.e. Router External IP 216.13.154.34 to DVR Internal IP 192.168.0.3:80).

The instructions found online in the Router Configuration Guides will assist you in the port forwarding configurations for a selection of different router models. Visit our Consumer Guides Support website at http://www.digimerge.com/ for more details.

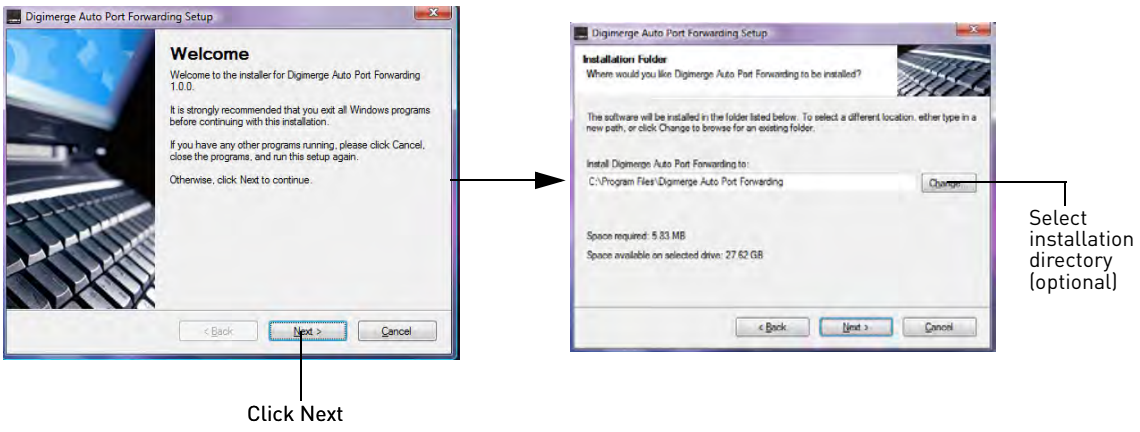
APPENDIX C: DIGIMERGE AUTO PORT FORWARDING WIZARD

The Digimerge Auto Port Forwarding Wizard is an exclusive software that easily automates router port forwarding. Before setting up a DDNS account, it is recommended to run the Auto Port Forwarding Wizard to port forward the required ports.

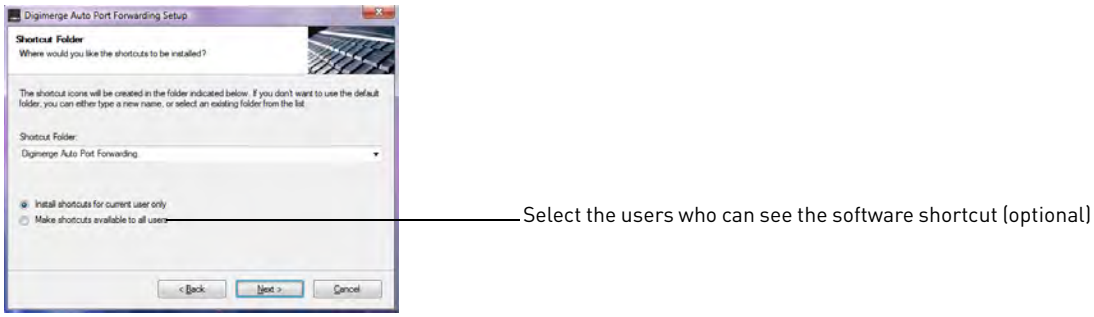
Installation

To install the Digimerge Auto Port Forwarding Wizard:

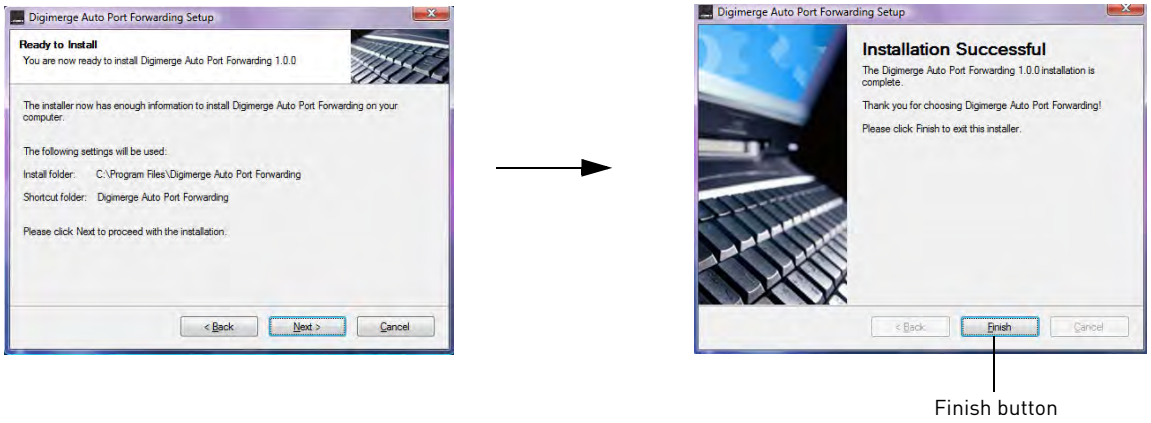
1. Insert the system's software CD, and follow the instructions to launch the Digimerge Auto Port Forwarding Wizard software.
   • The installation window opens.
2. Click **Next** to continue.


Digimerge Auto Port Forwarding Setup
Welcome
Welcome to the installer for Digimerge Auto Port Forwarding 1.0.0.
It is strongly recommended that you exit all Windows programs before continuing with this installation.
If you have any other programs running, please click Cancel, close the programs, and run this setup again.
Otherwise, click Next to continue.
< Back
Next >
Cancel
Click Next
Digimerge Auto Port Forwarding Setup
Installation Folder
Where would you like Digimerge Auto Port Forwarding to be installed?
The software will be installed in the folder listed below. To select a different location, either type in a new path, or click Change to browse for an existing folder.
Install Digimerge Auto Port Forwarding to:
C:\Program Files\Digimerge Auto Port Forwarding
Change...
Space required: 5.83 MB
Space available on selected drive: 27.62 GB
< Back
Next >
Cancel
Select installation directory (optional)

3. Click the **Change** button to change the default installation directory (optional). Click the **Next** button to continue.
4. Select the users who can see the Auto Port Forwarding shortcut (Optional). Click the **Next** button to continue.


Digimerge Auto Port Forwarding Setup
Shortcut Folder
Where would you like the shortcuts to be installed?
The shortcut icons will be created in the folder indicated below. If you don't want to use the default folder, you can either type a new name, or select an existing folder from the list.
Shortcut Folder:
Digimerge Auto Port Forwarding
Install shortcuts for current user only
Make shortcuts available to all users
< Back
Next >
Cancel
Select the users who can see the software shortcut (optional)

5. Click the **Next** button and then click **Finish** to complete the software installation.


Digimerge Auto Port Forwarding Setup
Ready to Install
You are now ready to install Digimerge Auto Port Forwarding 1.0.0
The installer now has enough information to install Digimerge Auto Port Forwarding on your computer.
The following settings will be used:
Install folder: C:\Program Files\Digimerge Auto Port Forwarding
Shortcut folder: Digimerge Auto Port Forwarding
Please click Next to proceed with the installation.
< Back
Next >
Cancel
Digimerge Auto Port Forwarding Setup
Installation Successful
The Digimerge Auto Port Forwarding 1.0.0 installation is complete.
Thank you for choosing Digimerge Auto Port Forwarding!
Please click Finish to exit this installer.
< Back
Finish
Cancel
Finish button

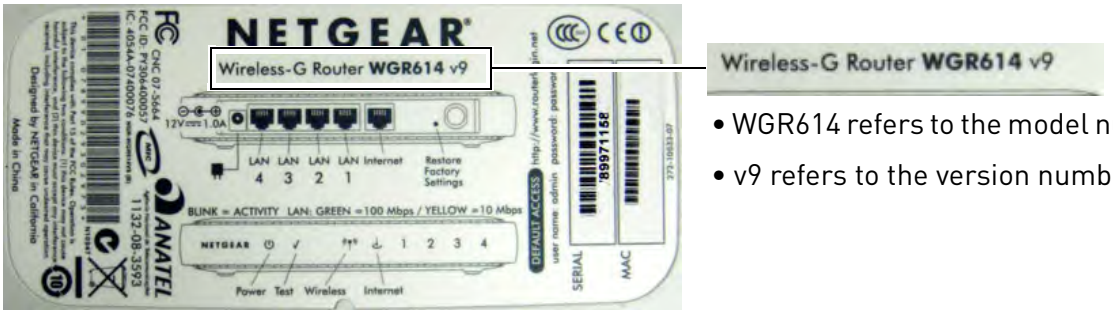
6. Double-click the Digimerge Auto Port Forwarding shortcut (

)from your desktop to start the program.

Obtaining Your Router Model Number and Version

On most routers, the model and version number can be found underneath the router, printed on a sticker.

Example



- WGR614 refers to the model number
- v9 refers to the version number

Configuration

You must have the following before you configure the software:

1. Your router's model number and version number
2. Your router's user name and password
3. Your Digimerge device's IP address
4. Your Digimerge device's port numbers that require port forwarding

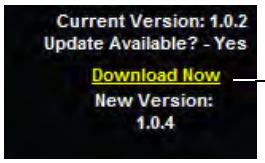
Initial Startup: Select Language

1. Click the Language drop-down menu and select a language (English, French, Spanish). Click the **Start** button to continue.

Software update section

Start button

Language drop-down menu



Download Now button

A software update includes an updated list of routers compatible with the Auto Port forwarding Wizard.

2. If software updates are available, click the **Download Now** button in the top-right corner.
   - Run the update file and install the latest version of the software.

Step 1: Populate the Router Database

The Auto Port Forwarding Wizard automatically populates a list of current routers, and detects the number of connected routers.

1. Click the **Next** button after the software detects your router configuration.

DIGIMERGE | Right for Business - Auto Port Forwarding
Step 1/3
Downloading Router Database...
Checking for multiple routers...
Checking for routers...
Routers Found: 1
Please have the following information ready.
1. Your Router Make & Model
2. Your Router Username & Password
3. Your Digimerge Product Information. Such as the device IP & port number.
Next

Click to update router database

Click to check for multiple routers

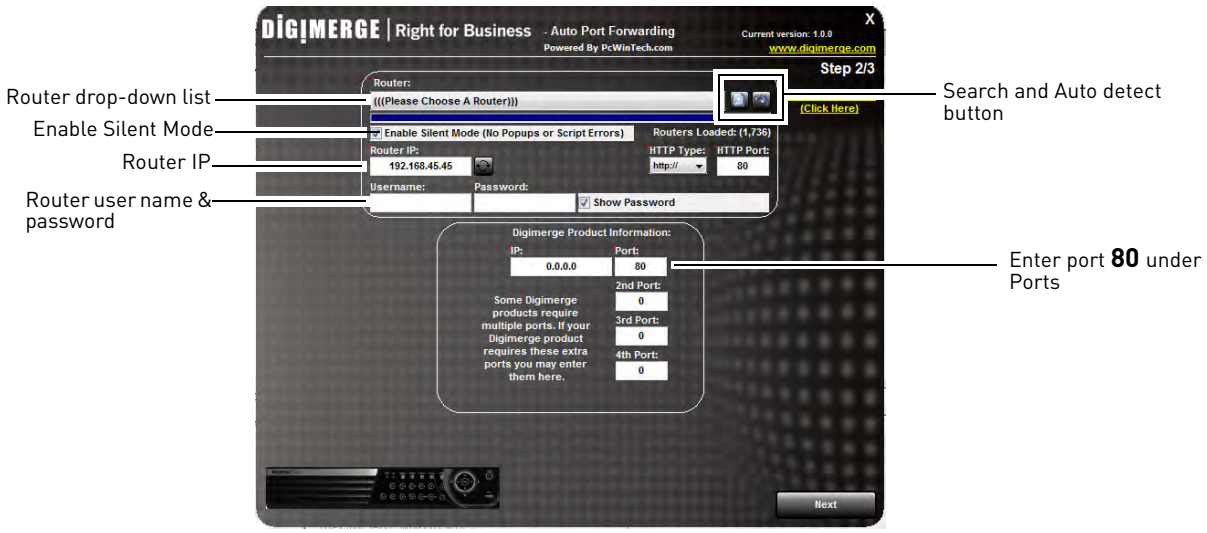
If more than one router is detected, you may need to contact your ISP (Internet Service Provider) to port forward.

For details on configuring multiple routers, see "Configuring Multiple Routers" on page 105.

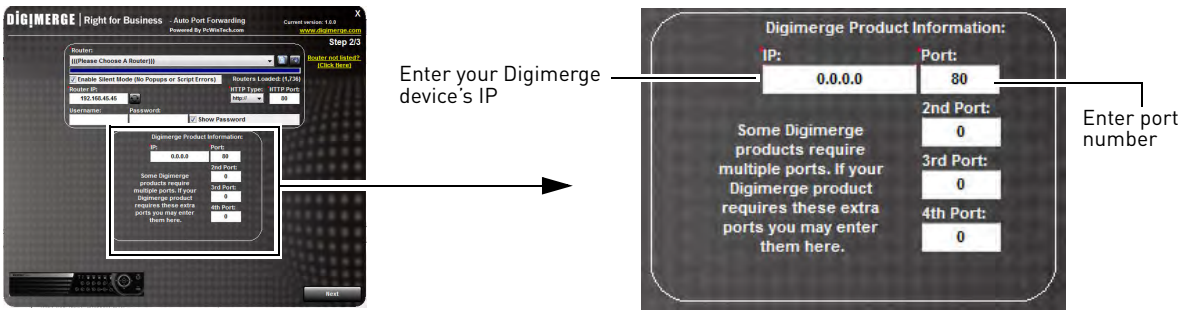
Step 2: Enter your Router Settings

1. Under the Router drop-down list, select the model of your router.
   OR
   • Click the **Search** button ( ) to enter the name of your router model.

   NOTE: Click the **Auto Detect** button ( )if you have a Linksys or Netgear router (works with most Linksys or Netgear models).



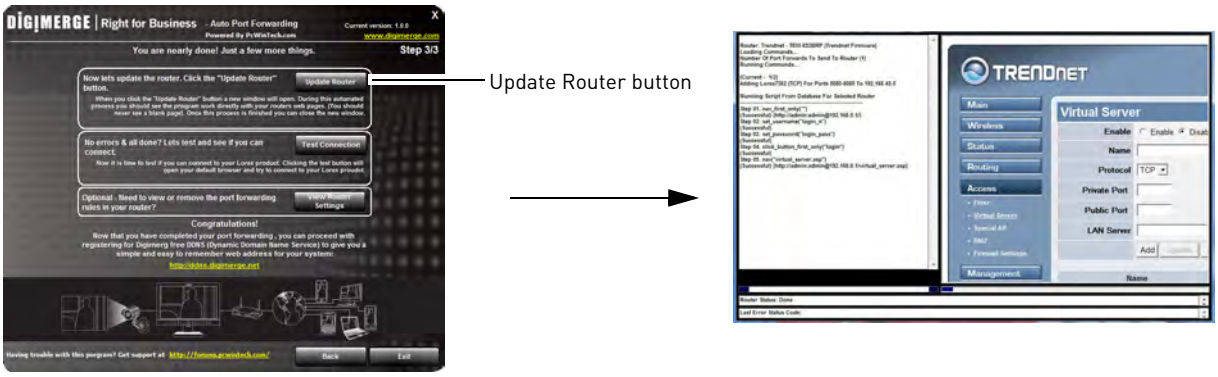
2. Under Router IP, click the **Detect Router IP** button ( ).
   • The router's IP populates in the blank field. Click **OK** to exit the prompt.
3. Under Username and Password, enter ***the router's*** username and password.
   • Optional: Under HTTP Type (default http://) and HTTP Port (default, 80), you may have to change the values depending on your router model. Consult your router manual for details.



4. Under IP, enter the IP address of your Digimerge device.
   NOTE: The IP is usually found in the information window of your DVR.
5. Under **Port**, enter the DVR's Web Port (by default, port 80).
6. Click **Next** to continue.

Step 3: Update the Router Settings

1. Click the **Update Router** button.
   - You will see your router window open. The Auto Port Forwarding Wizard automatically populates your router with the relevant information. This will take a few moments.



2. Close the update window when the update finishes.

Step 4: Test your Connection

1. Click the **Test Your Connection** button.
   - Your system's default browser opens and connects to your **Digimerge device**.

   NOTE: Ensure that Internet Explorer is your system's default internet browser.

   NOTE: A window opens that prompts you to enter in your **DVR's** user name and password (do not enter your DDNS log in information).

   NOTE: ActiveX warnings may appear. Accept all ActiveX installation warnings to connect to your system. For details.

Configuring Multiple Routers

Your network may have two or more connected routers. During the initial launch of the auto port forwarding wizard, the program scans the network to detect the number of connected routers.

To check for multiple routers:

1. Click the **Detect Multiple Routers** button ( ).
   - A list of connected router populates in the window.

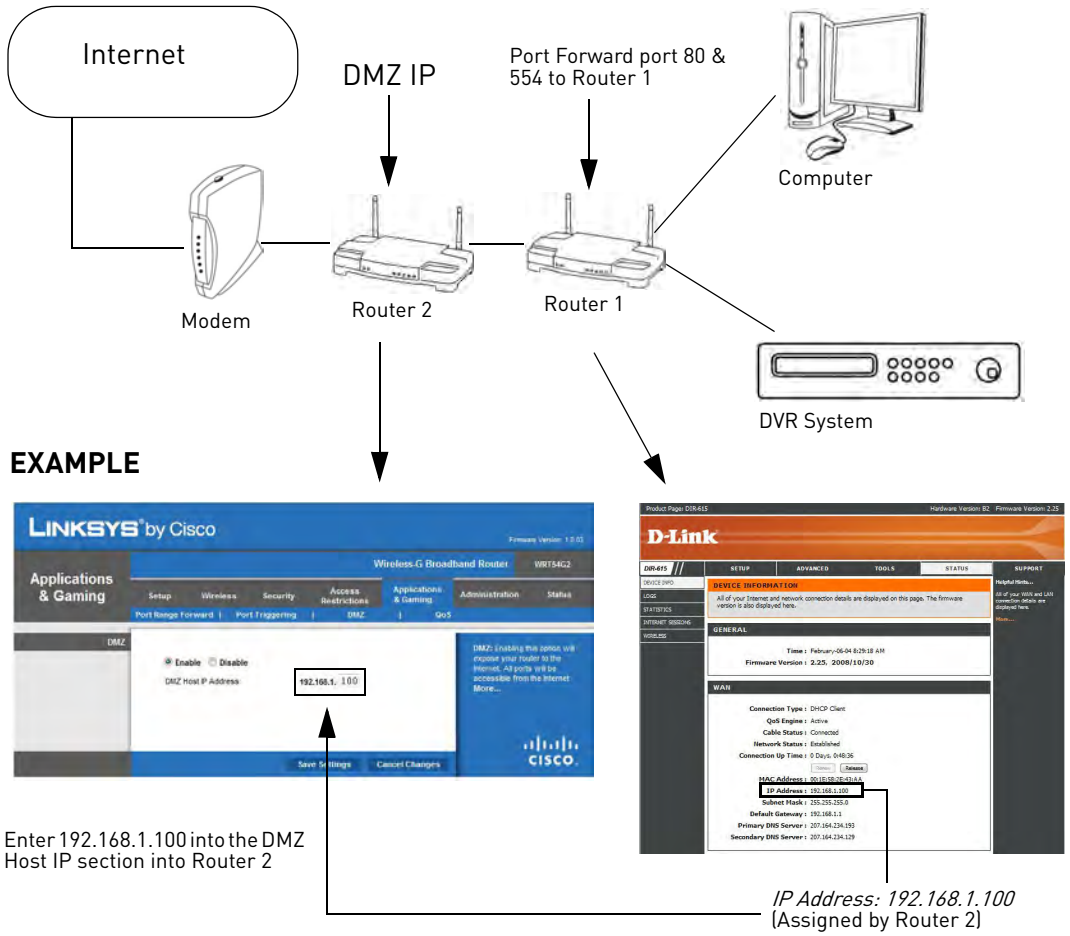
- The "Possible 1st Router" refers to the router directly connected to your system. This is the router that requires the port forward information.
- The "Possible 2nd Router" refers to the router immediate to the internet connection. This is the router that requires you to configure a DMZ host connection.

Scenario A: Router/Modem Combination + Router

- You may have a router/modem combination, with a second router in your network.

Scenario B: Multiple Routers

- You may have two routers in your network.



In both scenarios, the router that is immediate to the internet connection (Router 2 in illustration) must act as a "bridge" to another router (Router 1 in illustration). The Auto Port Forwarding Wizard must connect to Router 1.

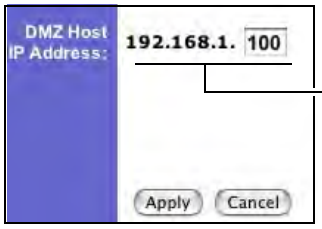
A proper DMZ configuration in Router 2 allows all incoming traffic going through Router 2 to automatically pass to Router 1. Router 2 acts as a "dummy" router and passes all the incoming data onto Router 1. Router 1 is the router that needs the port forwarding information.

Configuring a DMZ host connection

- Connect to "Router 1" on your network (referred to as "Possible 1st Router" in the Auto Port Forwarding Wizard). Obtain the IP address of Router 1. Usually this can be found in the "Status" section of your router menu. The IP should begin with "192.168...."This IP address is your DMZ IP.
- Enter the IP address obtained from Router 1 into the DMZ section of Router 2.
- Once you have configured Router 2 with a DMZ connection, run the Auto Port Forwarding Wizard to begin auto port forwarding to Router 1.
- Consult your router's owner's manual for details on configuring DMZ settings.

Example

DMZ stands for Demilitarized Zone. Enabling a DMZ IP on your router enables one of the routers to pass information onto the second router.

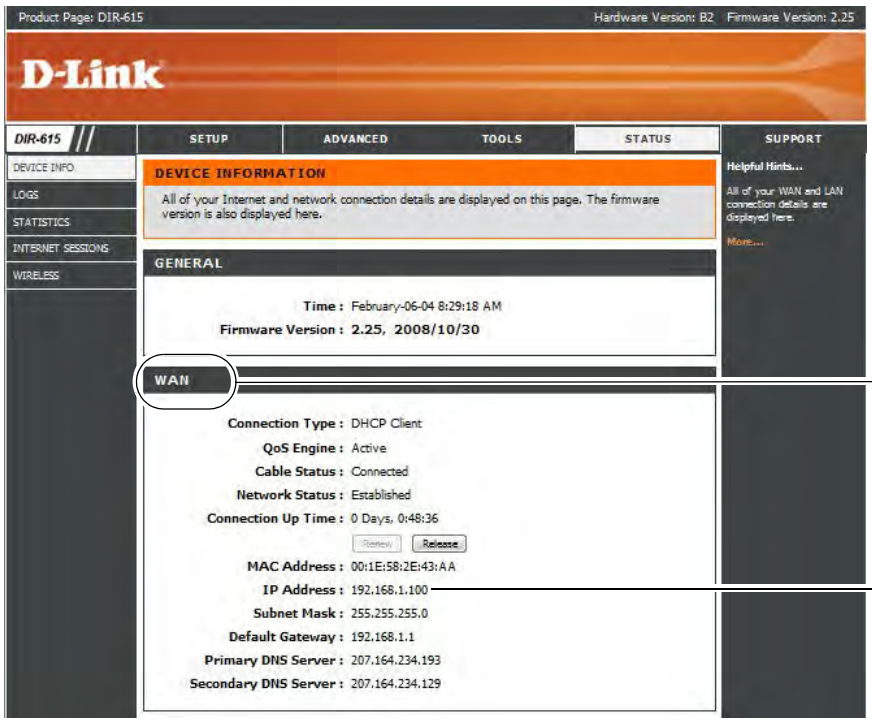


DMZ IP address assigned by a secondary router

Locating your Router IP - The Status Page

The "Status Page" of a router normally includes the router's vital information such as the IP address.

EXAMPLE



The IP information is normally under a header called "WAN" or "Internet Port". Each router has different terminology.

Router IP assigned by the main router. Enter this IP into the DMZ section of the primary router.

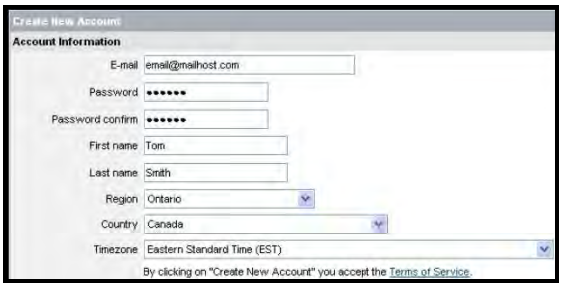
APPENDIX D: SETTING UP DDNS SERVICE

Digimerge offers a free DDNS service for use with your DVR. A DDNS account allows you to set up a web site address that points back to your local network. The following outlines how to set up your free DDNS account.

To setup your free Digimerge DDNS account:

1. In your browser, go to http://ddns.digimerge.net and click **Create Account**.
2. Complete the Account Information fields with your personal information. Complete the Warranty Information with your purchase details (optional).
3. Complete the System Information fields:
   - **Product License**: Select your product model from the Product License drop down menu (e.g. DH100-200).
   - **←Product Code→ - ←MAC Address→**: Locate the MAC address of your DVR (press the **INFO / 10+** button on the remote control to find the MAC address; 16-channel only: press the **INFO / 10+** button 2 times).
   - **URL Request**: Choose a URL for your DDNS connection (i.e. your name, your company or business name, or anything of your choice).
4. Once the information has been entered, click **Create New Account**.
5. Your Account information will be sent to you at the email Address you used in Step 2.

Create a DDNS account



Enter personal information

System information

You will need this information for remote access to your system. Record your information below:

Username: _

Domain name*: _

Password: _

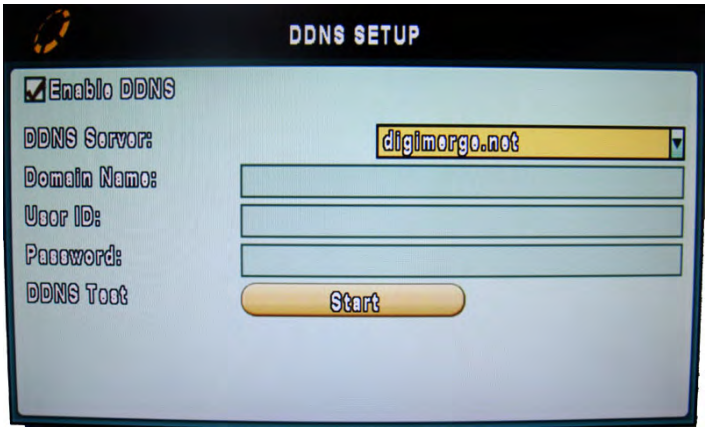
* Only the first part of the Domain Name is required for setup on the system. For example, if the full domain name is *tomsmith.digimerge.net*, you only need to enter *tomsmith* on the system.

How Do I Enable DDNS On My System?

Once you have registered for free DDNS service, use the information in the confirmation email to configure DDNS settings on your system.

To enable DDNS on your system:

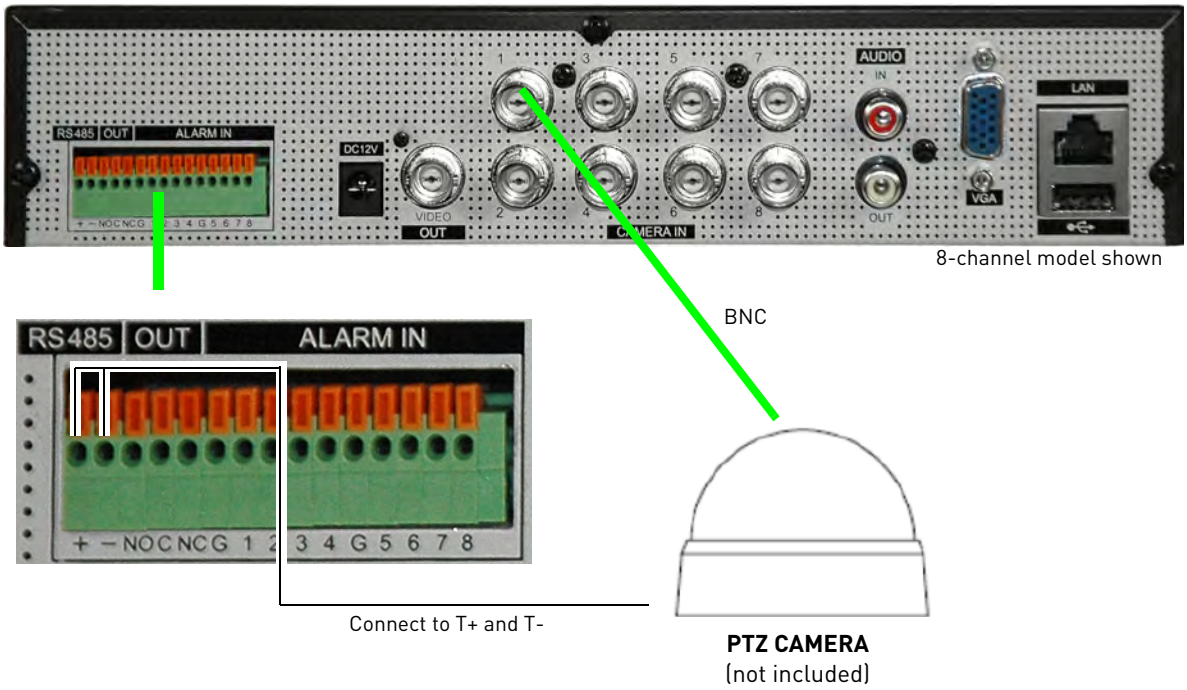
1. Open the MAIN MENU and click **NETWORK SETUP→DDNS SETUP.**



2. Select the **Enable DDNS** checkbox.
3. Under DDNS Server, select **digimerge.net**.
4. Enter the following:
   - **DOMAIN NAME**, enter only the **first portion of your DDNS domain** from the confirmation email. For example, If your domain name is *http://tomsmith.digimerge.net*, you only need to enter **tomsmith** in the text field.
   - **User ID**: Enter the DDNS user ID (emailed to you during the DDNS account creation process).
   - **Password**: Enter the DDNS password (emailed to you during the DDNS account creation process).
5. Click the **Start** button to test the connection. If you receive a "succecss" message, then DDNS is properly configured.
6. Right-click and click **Yes** to save your settings.

APPENDIX E: CONNECTING PTZ CAMERAS

You can connect RS-422/485 PTZ cameras (not included) to the PTZ Control Block on the rear panel of the system.



Connecting a PTZ camera (not included)

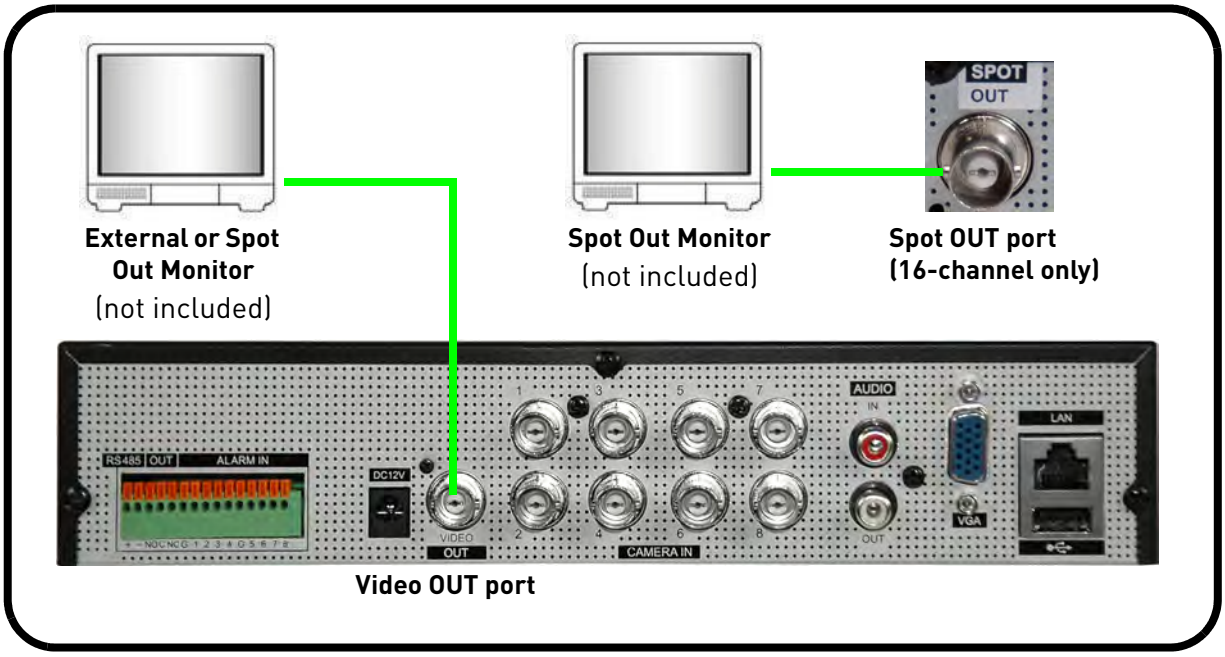
To install a PTZ Camera:

1. Connect the Transmit+ Cable to the **RS-485 TX (+)** port of the PTZ block on the rear panel.
2. Connect the Transmit- Cable to the **RS- 485 TX (-)** port of the PTZ block on the rear panel.
3. Connect the video cable to a BNC port (4/8-channel) or to the Octopus cable (16-channel).
4. Open the Main Menu and select **PTZ Control.**
5. Click the number tab to select the channel that the PTZ camera is connected to.
6. Select the "Enable PTZ" checkbox.
7. Enter the PTZ's **Protocol, PTZ ID** and **Baud Rate**.
   NOTE: The PTZ camera settings depend on the type of PTZ camera. Please refer to the specific camera manual for your brand and model of PTZ camera.
8. Right-click and click **Yes** to save your settings.

APPENDIX F: CONNECTING AN EXTERNAL OR SPOT OUT MONITOR

Use the Video OUT port (BNC) on the rear panel of the system to connect an external monitor or spot out monitor (4/8-channel models only). An external monitor displays the exact on-screen display of the system. A spot out monitor displays channels in sequence mode.

- **16-channel models only**: Use the Video OUT port (BNC) to connect an external monitor. Use the Spot OUT port (BNC) to connect a spot out monitor. Monitor connected to Spot OUT port cannot be configured as an external monitor.



*8-channel model shown

To connect an external monitor:

1. Connect a BNC cable (not included) from the Video OUT port to the monitor.
   NOTE: A BNC-to-RCA adapter (not included) is required to connect a monitor with RCA inputs.

To configure a spot out monitor (4/8-channel models):

1. Connect a BNC cable (not included) from the Video OUT port to the monitor.
2. Right-click to open the Quick Menu, and click **Setup (** **)→Main Menu (** **)→System Setup (** **)→SPOT SETUP**. Check **Enable Spot**. Right-click and click **Yes** to save.

To connect a spot out monitor (16-channel models):

- **16-channel only**: Connect a BNC cable (not included) from the Spot OUT port to the monitor.

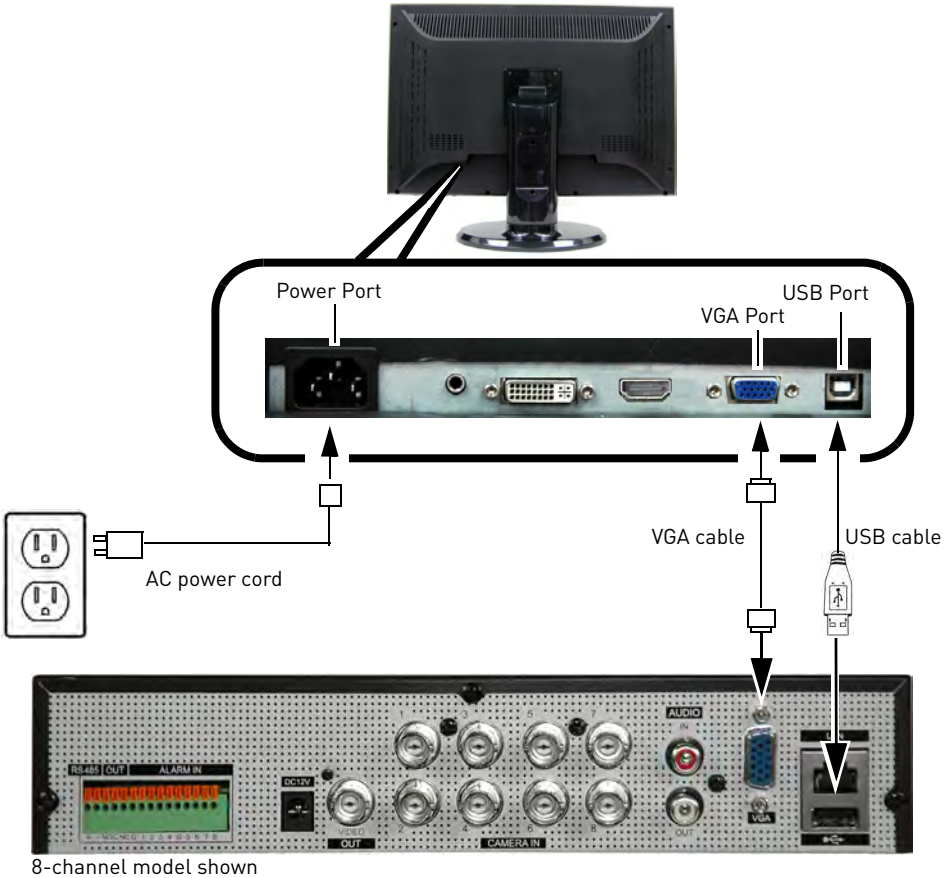
APPENDIX G: TOUCH SCREEN MONITOR SETUP

> The USB cable must be connected to the monitor's USB port and the DVR's USB port to enable the touch screen function.

The DH100 Series DVRs can be controlled with a touch screen monitor (not included). Touch screen monitors must be Windows 7® Touch compatible to work with the system.

NOTE: A firmware upgrade may be required to enable touch screen compatibility. Firmware upgrades are available as a free download from www.digimerge.com.

Step 1 of 3: Connect the Cables



8-channel model shown

USB Cable: Enables the DVR to recognize touch gestures on the monitor.

VGA Cable: Transmits video from the DVR to the touch screen monitor.

AC Power Cord: Provides power to the touch screen monitor.

Step 2 of 3: Power on the Monitor

Step 3 of 3: Test the Touch Screen Functions

Before you start:

1. Make sure your monitor is turned on.
2. Power on your DVR.
3. Wait for the DVR to boot into the main viewing mode.

Access Quick Menu

- While in viewing mode, press and hold anywhere on the screen for 2 or more seconds. Then remove your finger to open the Quick Menu.

Navigate Menus

- Tap to select menu options.
- To exit menus, press and hold anywhere on the screen for 2 or more seconds. Then remove your finger. If you have made any setting changes, you will be asked if you want to save changes.

Select Split Screen View

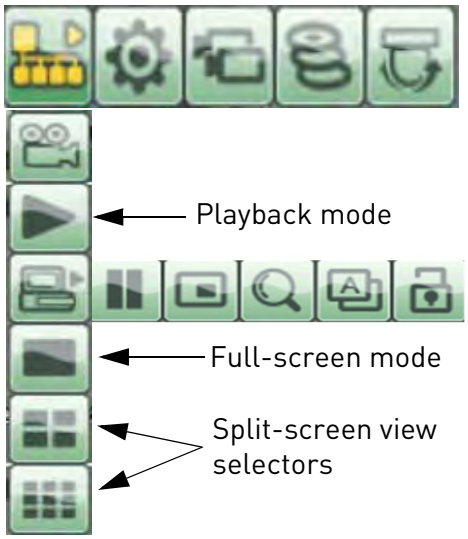
- In the Quick Menu, tap one of the Split-screen view selectors to open split-screen view.

Select Channels in Full Screen

- While in a split-screen display mode, double tap on a channel to view it in full screen. Double tap again to return to split-screen display mode.

Access Playback Mode

- In the Quick Menu, tap to enter Playback Mode.
- Tap the on-screen controls to control video playback.
- To exit Playback Mode and return to viewing, press and hold anywhere on the screen for 2 or more seconds. Then remove your finger.



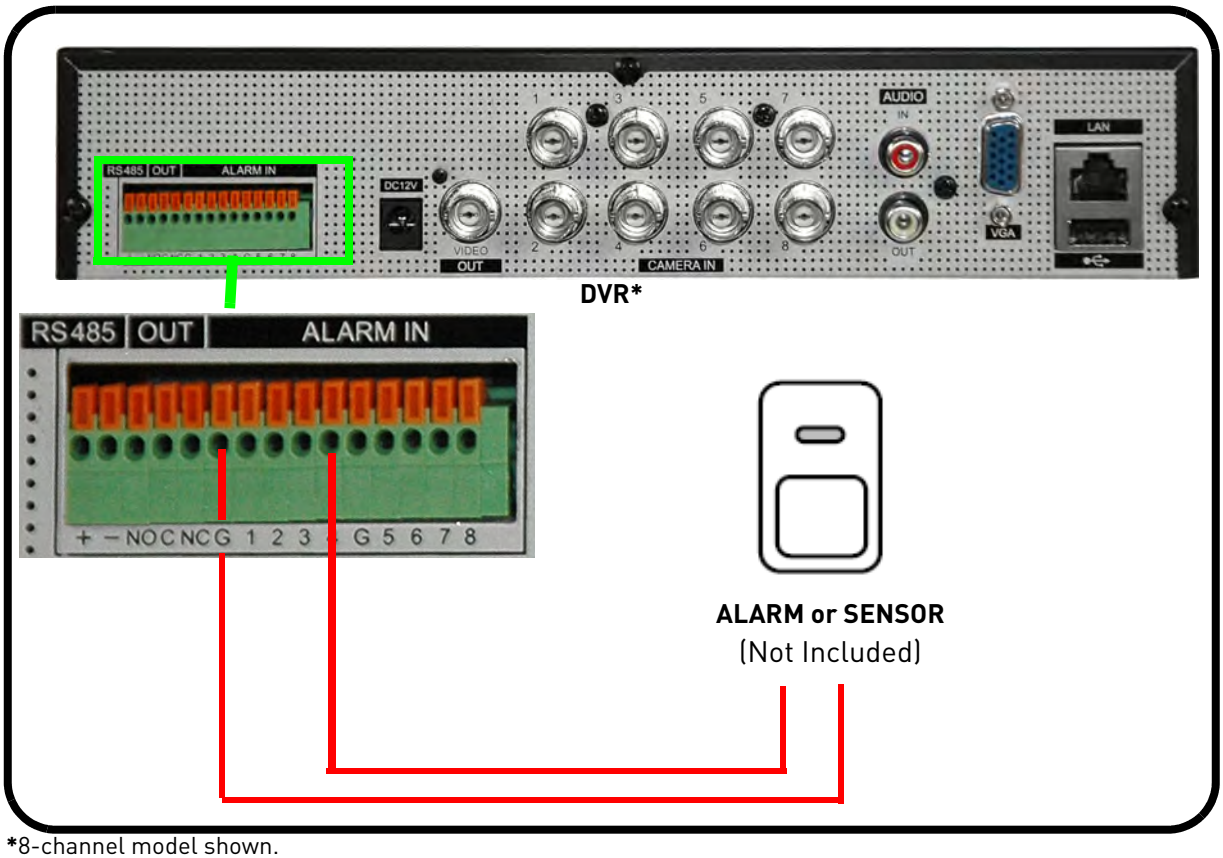
Quick Menu (8-channel model shown)

APPENDIX H: CONNECTING MOTION / ALARM DEVICES

You can enable motion detection and alarm control from the Main Menu. You can also connect additional motion sensor devices to the system (i.e. motion sensors, door/window sensors). Use a motion detector or sensor to send a signal to the system to begin camera viewing and recording on the matching camera channel (when enabled in the Menu).

To connect an external alarm sensor (ALARM INPUT) to the system:

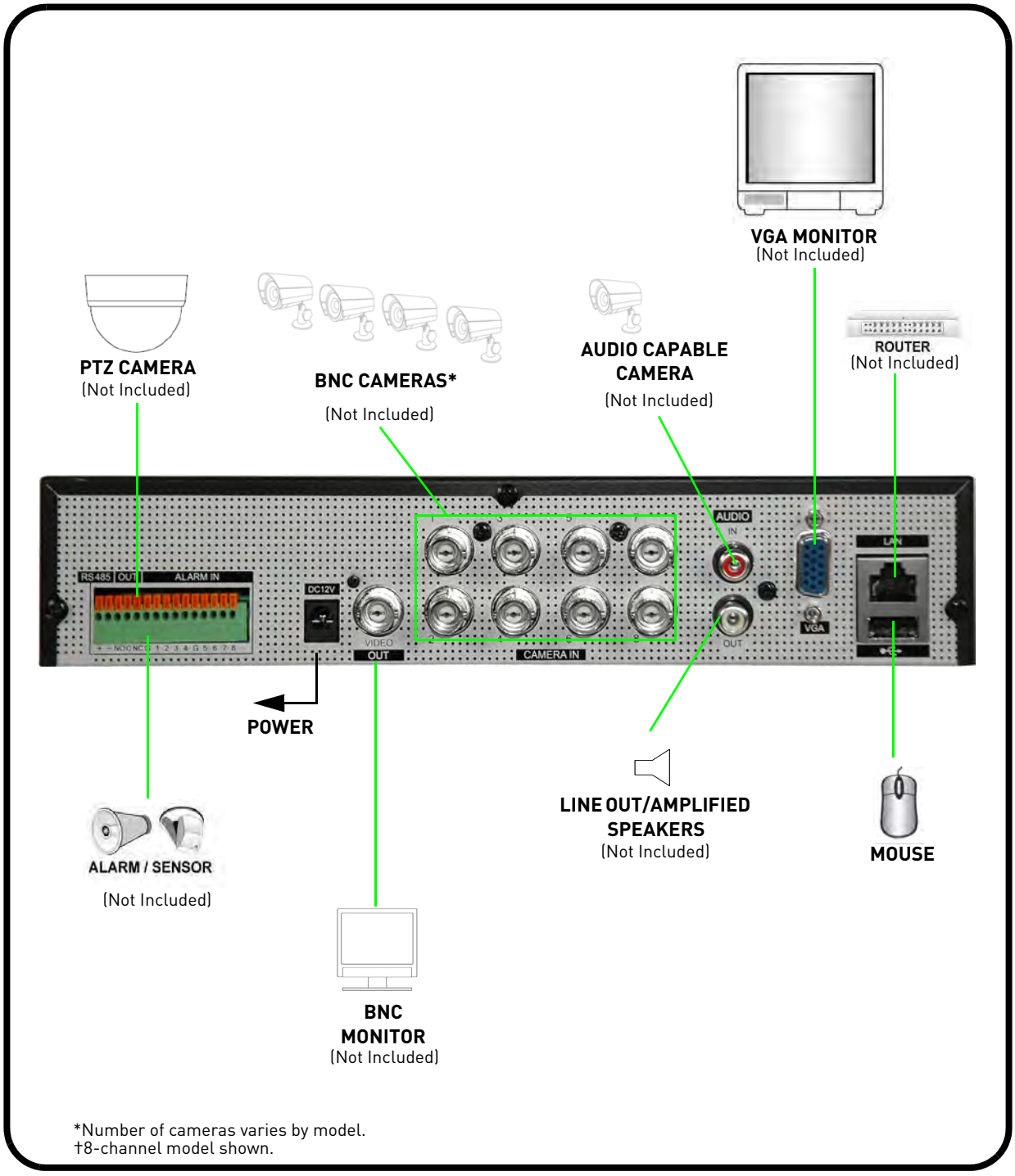
1. Connect the Signal Cable to the desired **port** in the alarm block.
2. Connect the Ground cable to the **Ground port (G)** in the alarm block.
3. Navigate to **Main Menu→Event Setup→Sensor Setup**.
4. Beside the corresponding alarm channel, select **N.C.** (Normally closed) or **N.O.** (normally open) depending on your alarm/sensor setup.
5. Right-click and click **Yes** to save your settings.



*8-channel model shown.

APPENDIX I: FULL CONNECTIVITY DIAGRAM

The following diagram outlines a general set of connections available with the DVR.



*Number of cameras varies by model.
†8-channel model shown.

APPENDIX J: REPLACING THE HARD DRIVE

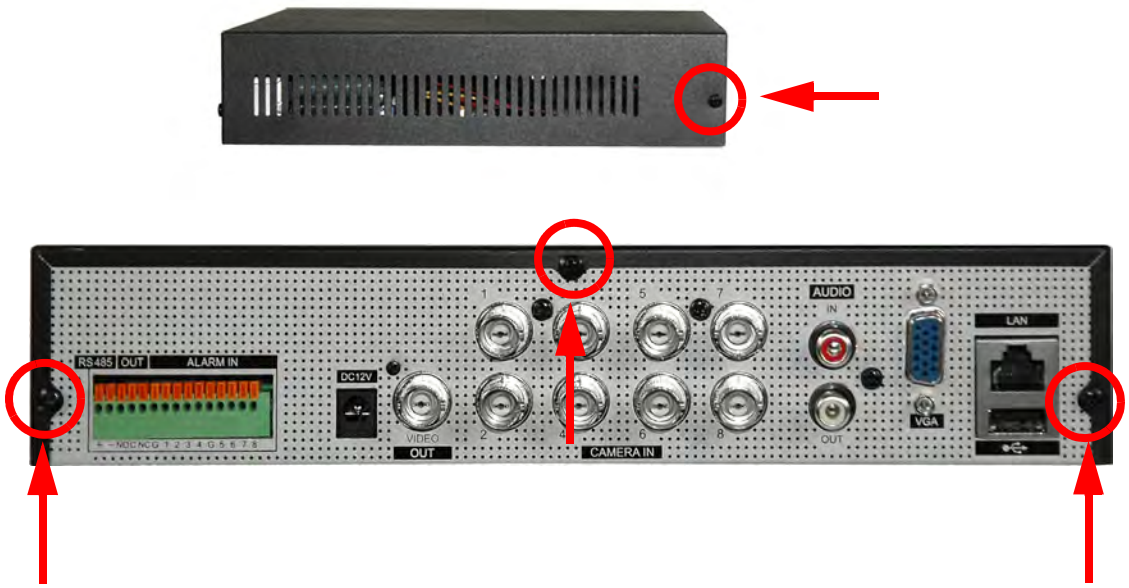
The system comes with a pre-installed 3.5" SATA hard drive. You can install up to one 1.5TB hard drive.

NOTE: Make sure that the system is *OFF* and the power cable has been disconnected before changing the hard drive.

Removing the Hard Drive

To remove the hard drive:

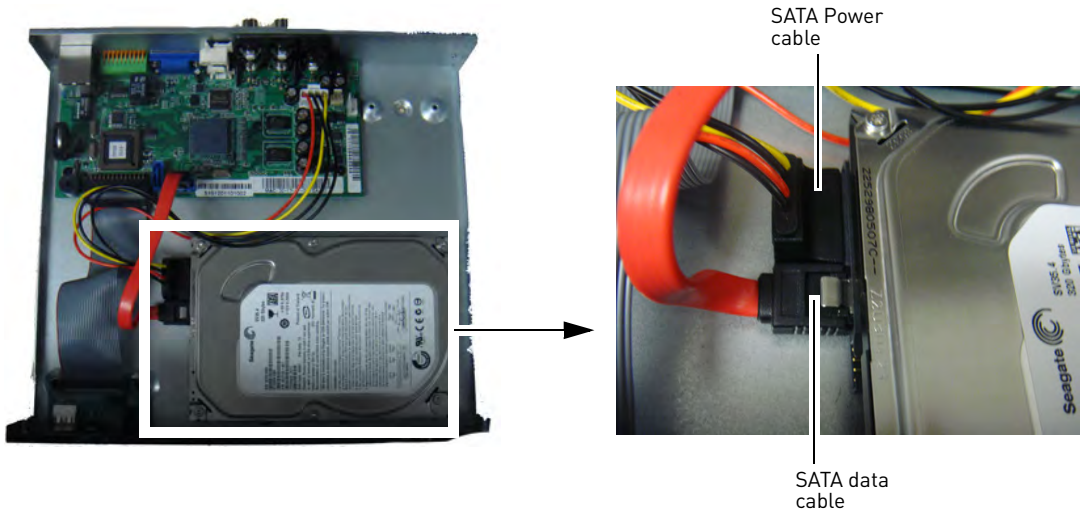
1. Power off the system, and unplug all wiring / cabling from the system.
2. Remove the two (2) short screws on the side panels of the housing and the three (3) short screws on the rear panel. Keep these sets of screws separate.



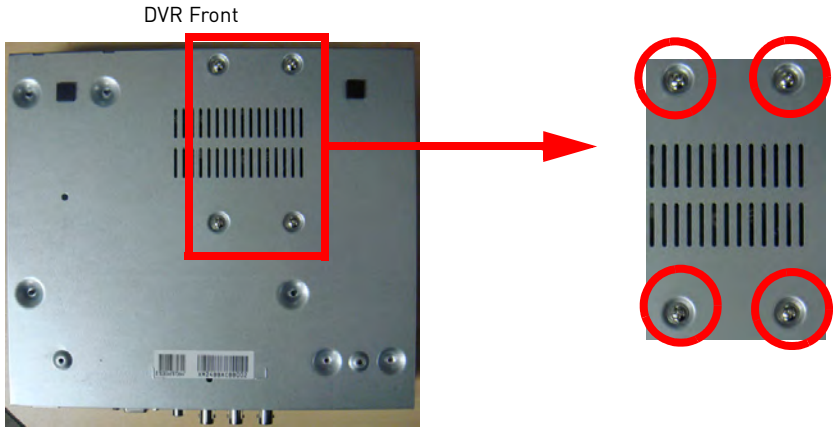
*8-channel model shown

3. Carefully slide the cover away from the front panel and lift away from the housing.
   NOTE: Make sure the cover is clear of all ports and connectors on the rear panel.

4. Disconnect the SATA data and power cable from the hard drive. To remove the SATA data cable, pinch the metal connector, and gently pull.



5. Remove the four (4) mounting screws underneath the system.

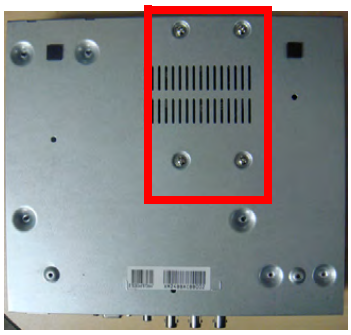


Replacing the Hard Drive

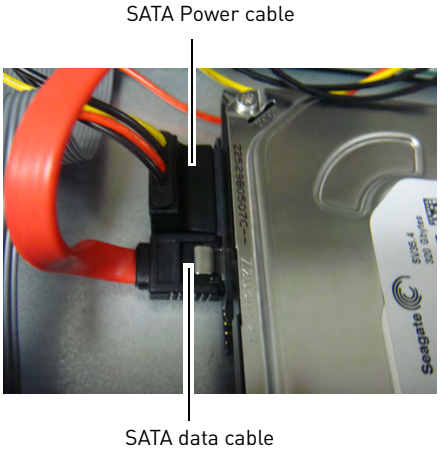
To replace the hard disk:

1. Place the new hard drive in the housing. Carefully flip the DVR over, with your hand clasping the hard drive. Secure the hard drive with the 4 silver screws from the bottom of the DVR.

DVR Front



2. Connect the SATA power and data cables in the hard drive.



3. Replace the system cover.

4. Replace the screws on the side and rear panel.

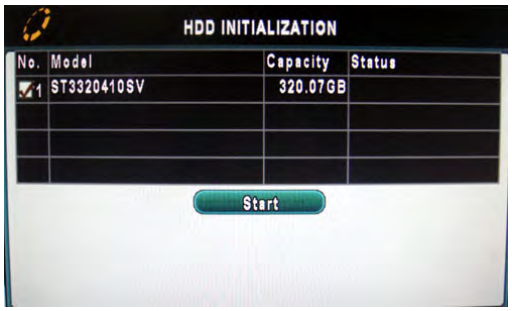
Formatting the Hard Drive

After installing a new hard drive, you must format it before the system can recognize it.

ATTENTION: Formatting the HDD erases *all data* on the hard disk. *This step cannot be undone*. System settings will not be erased.

To format the hard disk:

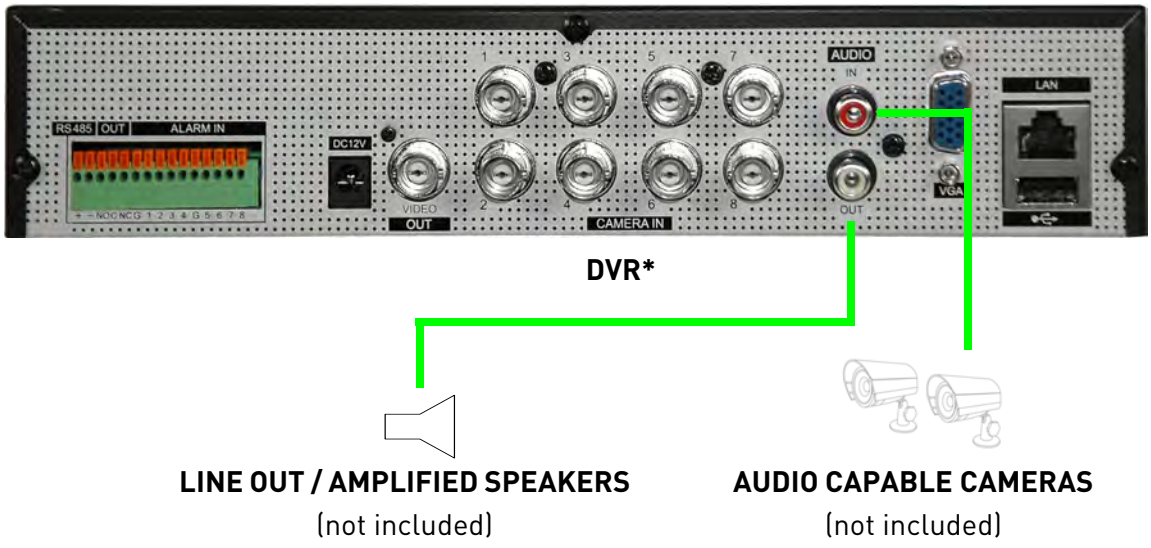
1. From the main menu, click **Utilities→HDD Initialization**.



2. Under "No.", select the checkbox beside the hard drive you wish to format.
3. Click the **Start** button.
4. Click **Yes** again on the warning to format the hard drive.
5. When formatting is complete, a "Success" message appears under the Status column.

APPENDIX K: USING LISTEN-IN AUDIO

Listen-in audio allows you to listen to, and record live audio on the system.



*8-channel model shown.

To enable listen-in audio:

1. Connect the audio cable (RCA) from an audio capable camera (not included) to the AUDIO IN port on the rear panel of the system.
2. Open the MAIN MENU and click **System Setup→Device Setup→AV Output Setup.**
3. Drag the volume slider to the desired level.
4. Right-click and click **Yes** to save your settings.

To configure the camera volume:

1. Open the MAIN MENU, and click **Camera Setup**.
2. In channel 1, drag the Volume slider to the desired audio level.
3. Right-click and click Yes to save your settings.

TROUBLESHOOTING

When a malfunction occurs, it may not be serious and can be corrected easily. The following describes the most common problems and solutions. Please refer to the following before calling Digimerge Technical Support:

Error	Possible Causes	Solutions
• DVR is not receiving power, or is not powering up	• Cable from power adapter is loose or is unplugged	• Confirm that all cables are connected correctly • Confirm that the power adapter is securely connected to the back of the unit
	• Cables are connected, but DVR unit is not receiving sufficient power	• Confirm that the unit is powered on (LED indicators on the front should be ON) • If the unit is connected through a power bar or surge protector, try bypassing the bar and connecting the power directly to the wall outlet • Confirm that there is power at the outlet: • Connecting the power cable to another outlet • Test the outlet with another plugged device (such as an electric calculator or phone charger)
• Remote control is not detected by the system	• Batteries in the remote control are drained	• Install a fresh CR2025 battery in the remote control
	• There are no batteries in the remote control	
• Hard drive is not detected by the system	• Hard drive cables are loose or not properly connected • Hard drive has not been initialized (formatted) by the system	• Remove the housing and check that hard drive cables are firmly connected • For details, see "Formatting the Hard Drive" on page 119.
	• There is no hard drive in the system	• Open the housing and install a 3.5" SATA hard drive
Hard drive is full (0%) and the unit is no longer recording	• Repeat Record is not enabled	• From the Main Menu, select RECORD. Beside DISK OVERWRITE, select ON. Press enter to save your settings. This enables the system to continuously record by overwriting data once the hard drive is full
Mouse not detected by system	• Mouse cable is not firmly connected to the system	• Firmly connect the mouse cable to the the system;
	• Mouse is not connected to the system	
	• System needs to be reset	• Re-connect the power cord to restart the system.

Troubleshooting (cont'd.)

Error	Possible Causes	Solutions
• There is no picture on selected channels / camera picture is not being displayed	• Camera cables are loose or have become disconnected	• Check the camera video cable and connections • Disconnect and reconnect the cable at the DVR and at the Camera • Try moving the camera to another channel or use another cable
• The image on the DVR appears, but does not have sound	• Audio cables are loose or have been disconnected	• Check the AUDIO connections to the DVR
	• Audio channel is set to OFF in the system menu	• Open Main Menu>Camera Setup. Ensure the volume bar is set to the highest settings.
	• Audio is associated with the wrong video channel	• Audio is only available for channel 1—connect the audio capable camera to channel 1 to avoid confusion
• My system does not seem to be recording	• Continuous Recording may be disabled	• Right-click in live view, and click the RECORD ON/OFF button. Ensure the "R" symbol appears in the channels—**ATTENTION**: For security, it is highly recommended to keep Continuous Recording ON at all times

Remote Connectivity Troubleshooting

Error	Possible Causes	Solutions

• I cannot connect to the system using a DDNS URL	• No internet connection
	• A DDNS account was not created
	• Incorrect DDNS URL
	• DDNS not enabled on the system
		• Ensure the DVR is connected to a high speed internet connection.
		• Ensure that you have created a DDNS account.
		• Ensure that you type the URL in full ie: http://tomsmith.digimerge.net:80.
		  • Ensure there are no spelling errors in the URL.
		  • Include http:// and the port number of your system in the URL.
		• Ensure DDNS is enabled on your system.

• I receive an error when I try to log in to the system	• Incorrect user name and password	• The default user name is: admin • The default password is: 000000 • Ensure that caps lock is disabled. The password and user name are case sensitive.

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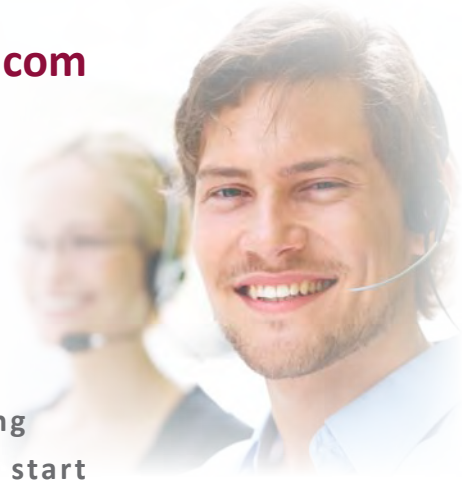
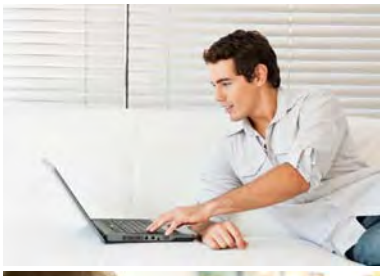
Need Help?

Please make sure to visit our website **www.digimerge.com** to receive product updates and information.



3 Easy Ways To Contact Us



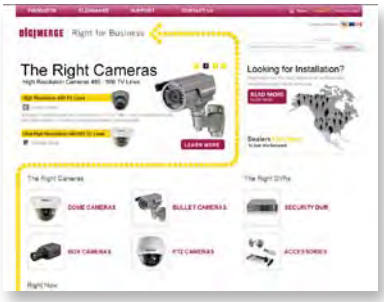
Online:
Product support is available 24/7 including product information, user manuals, quick start up guides and FAQ's at **www.digimerge.com**

By Email:
Technical support (for technical/installation issues)
tech@digimerge.com

By Phone:
North America: 1-866-816-5919
Technical support (for technical/installation issues)
Mon-Fri 8.00 am to 8.00pm EST

We welcome your feedback at
info@digimerge.com

For more information, visit
www.digimerge.com



www.digimerge.com

Digimerge Digital Video Recorder (DVR) – 5/3/1 Year Limited Hardware Warranty

Warranty: Subject to the exclusions, limitations and exceptions, Digimerge warrants to the initial end-user purchaser that this hardware product is free from manufacturing defects in material and workmanship under normal use for a period of three (3) years from the documented date of purchase. Digimerge warrants the security certified Seagate SV35 Series Hard Disc Drive (HDD) for a period of (5) years from the documented date of purchase.

DVR Warranty Details:
The three (3) year warranty period consists of:

- One (1) year over-the-counter replacement warranty covering parts and labor
- Two (2) additional years of repair depot warranty covering parts and labor with proof of RA issued by Digimerge tech support
- Note: Return Authorization number (RA) must be issued by Digimerge Technical Support to the Dealer prior to product replacement at the Distributor.

Exceptions to the above warranty are:

- DVR components including, but not limited to, moving parts, motors, fans, removable flash memory. These are warranted for a one (1) year period.
- Data loss – end users are recommended to back up the content of the hard drive on a regular basis.
- Data recovery, consequential damages, incidental damages and costs related to removal and installation of the hard drive are not covered under this warranty and are not part of the repair or exchange process.

Software & Consumables: All software, accompanying documentation and consumables (including but not limited to fuses and batteries) provided with or as part of the product are furnished AS IS, and are excluded from warranty coverage. Digimerge is not obligated to provide the end-user with a substitute product during the warranty period or at any time.

NOTE: Products are subject to continuous improvement. DIGIMERGE Technologies Inc. and its subsidiaries reserve the right to modify product design, specifications and prices, without notice and without incurring any obligation. Software and firmware are subject to updates from time to time.

For valid warranty claims made during the warranty period, upon proper **proof of purchase** (which is defined as a "valid form of a bill of sale or receipt from an authorized retailer or distributor showing the original date of purchase"), defective products will, at the sole discretion of Digimerge, be repaired or replaced with equal or better product in terms of hardware features without charge if all the conditions set forth in this warranty are met. Any products repaired or replaced within the warranty period, shall be warranted by Digimerge to the initial end-user purchaser for 90 days from the return shipment date, or the remainder of the warranty term, whichever is longer. Repairs are warranted for 90 days outside the original warranty period. Products and parts, at Digimerge's sole discretion, may be replaced with new or refurbished items, and the products and parts replaced become the property of Digimerge. Product returned to Digimerge must be properly packaged in its original packaging (or packaging providing the product with protection equivalent to the original packaging) and sent, with the postage charges prepaid via a shipping method that provides for tracking of your package, to the address provided at the time the Return Authorization was requested. The customer is responsible for all shipping costs associated with the return of the defective products for warranty service to Digimerge warranty/repair depot facilities. Products will be returned to the end-user freight prepaid. Digimerge reserves the right to replace the original hard drive with an equivalent one.

Exclusions and Limitations: Any of the following will void this warranty:

1. Installation or use of the product other than strictly in accordance with the instructions contained in the product's instruction manual;
2. If the product is subjected to operating conditions (including atmospheric, moisture and humidity conditions) outside of the acceptable conditions specified in the product's instruction manual;
3. If the product is subjected to misuse (not adhering to instructions supplied with the product), negligence, modification (of hardware, firmware or software) or abuse;
4. If the product is subjected to electrical short circuits or transients, accident, fire, flood or Acts of God;
5. Adjustment, maintenance or repair of the product other than in accordance with Digimerge approved procedures; and
6. Use of replacement parts other than those specified by Digimerge.
7. If the products original identification (trademark, serial number, model number) markings have been removed, defaced or altered.

DIGIMERGE MAKES NO CLAIMS OR WARRANTIES OF ANY KIND WHATSOEVER REGARDING THE PRODUCT'S ABILITY OR EFFECTIVENESS IN PREVENTING OR REDUCING THE RISK OF, OR DAMAGES RESULTING FROM, LOSS OR THEFT OF PROPERTY OR PERSONAL INJURY. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. DIGIMERGE SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY KIND OR CHARACTER, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURY, LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS OR OTHER BENEFITS, OR CLAIMS AGAINST THE PURCHASER BY ANY THIRD PERSON, EVEN IF DIGIMERGE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

No claims or statements regarding the product, whether written or verbal, by salespeople, retailers, dealers or distributors, that are not contained in this limited warranty or in the owner's manual are authorized by Digimerge and do not modify or expand this warranty. Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages for certain products supplied to consumers or the limitation of liability for personal injury. To the extent that such restrictions on limitations apply to the products, the above limitations and exclusions may be limited in their application. In that case, when the implied warranties are not allowed to be excluded in their entirety, they will be limited to the duration of the applicable written warranty, and if damages may not be limited then the above limitations on damages apply, but only to the greatest extent permitted by local law.

Warranty and Non-Warranty Service:

Warranty service can be received by contacting your Digimerge dealer (during the warranty period). The dealer is required to first contact Digimerge Technical Support for assistance. In the event the problem cannot be resolved over the phone or via email, Digimerge will advise to return the product, at customer's expense, for repair or replacement. Upon receipt of the defective product, Digimerge will send a repaired or replacement product at Digimerge's expense to the customer. Dealer should send product to:

In United States:

Digimerge Returns
Schenker Logistics
2363 E. Perry Road
Suite 171, Dock Door 44
Plainfield, IN 46168

In Canada:

Digimerge Technologies Inc.,
Attention: Repair Department,
250 Royal Crest Court,
Markham, Ontario, Canada,
L3R 3S1

Out of warranty service: Please visit our web site (www.digimerge.com) for the name and location of the Digimerge authorized service centers.

IT'S ALL ON THE WEB!

Tout est sur le Web!

¡Todo está en la Web!

Product Information
Information sur le produit
Información acerca del producto

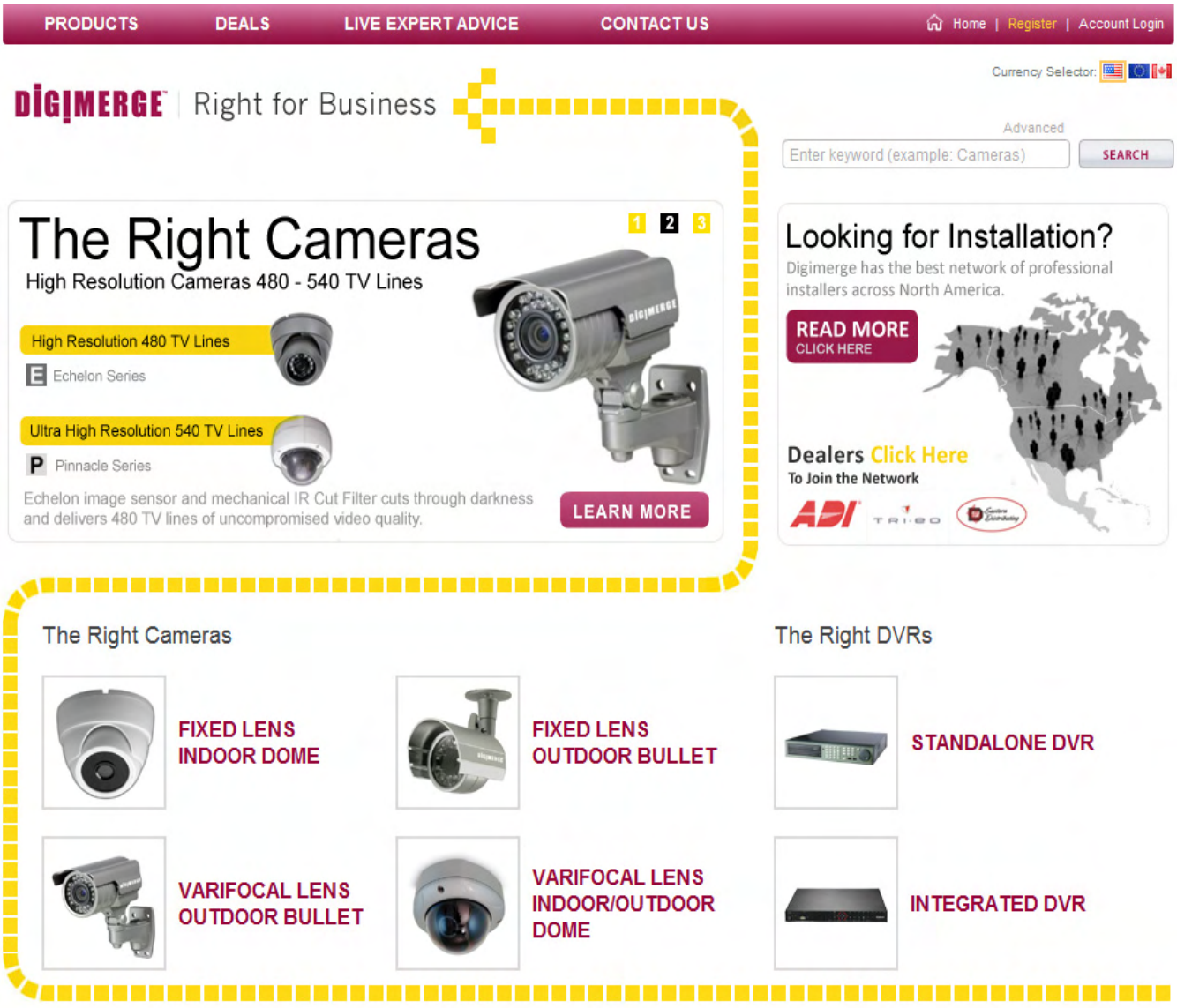
Quick Start Guides
Guides de démarrage rapide
Guías de arranque rápido

Software Upgrades
Mises à jour du logiciel
Actualizaciones del programa

User Manuals
Guides de l'utilisateur
Guías del usuario

Specification Sheets
Fiches signalétiques
Fichas de especificaciones

Firmware Upgrades
Mises à jour du micro-logiciel
Actualizaciones del microprograma



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